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BIBLIOGRAPHICAL INDEX

OF

NORTH AMERICAN FUNGI

BY

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VOL. I.—PART I.

ABROTHALLUS TO BADHAMIA

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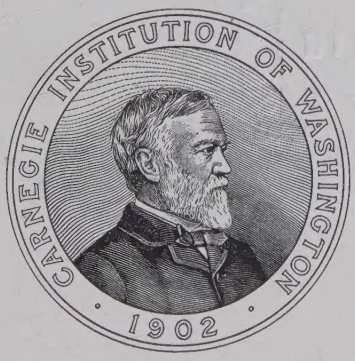

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PREFACE.

THE present Bibliographical Index owes its origin to the fact that in 1874, when the writer returned from Europe where he had spent a couple of years in the study of mycology, he found it impossible to ascertain what species of fungi were known to occur in the United States. With the exception of the two monographs of Schweinitz, issued in 1822 and 1834, the accounts of North American fungi were scattered through numerous papers in the publications of learned societies, many of them difficult to obtain, in various State reports and in horticultural and agricultural journals. Berkeley and Curtis' Notices of North American Fungi, begun in Grevillea in 1872, were then in progress of publication, but the student who desired to find out what was known of our fungi was forced to spend a large amount of time in hunting up in the larger libraries the many scattered and often obscure works from which information could be obtained. The writer then determined to bring together all references to North American species in the form of a card catalogue, not an easy matter at that date. At the same time an authors' catalogue was started including the titles of all the works used in forming the catalogue of species. The authors' catalogue was printed in 1887 as Bibliographical Contribution No. 25 of the Library of Harvard University under the title, "A List of Works on North American Fungi," by W. G. Farlow and William Trelease. This included 653 titles, and was followed in 1888 by a Supplemental List, by W. G. Farlow, being Bibliographical Contribution No. 31, bringing up the number of titles to 756. The authors' catalogue has been continued and a new edition is in preparation, including the parts previously issued with additions up to 1905.

As originally planned the Index included as species of North American fungi all those known north of Mexico, but in recent years the species of our southern border have proved to be so intimately connected with those of the West Indies, Mexico and Central

America that it seemed necessary to extend the limit of the Index to species of all countries north of the Isthmus of Panama. In the following pages where a species has been recorded only in countries south of the United States, the name of the region where it occurs is given on the right hand side of the page, but where a species occurs both in the United States and regions farther south no special indication is given. Had it been possible, it would have been desirable to include also species of the northern part of South America, but the line had to be drawn somewhere, and to include South American species would have required an additional amount of work hardly warranted under the circumstances. As it is, we have given all the references known to us to West Indian and Central American species published in recent years, and, to the best of our ability, we have inserted the species recorded from those regions in works issued prior to 1888, but not included in the List of 1887 and the Supplementary List of 1888. The references given from works relating especially to the fungi of the West Indies and Central America are probably comparatively complete, but it is probable that some references to species of those regions originally scattered in papers treating also of the fungi of other countries have escaped our notice.

The Sylloge Fungorum of Saccardo, of which the first volume appeared in 1882, has been of the greatest assistance to American mycologists in furnishing a summary of all known species, but naturally in a work covering so large a field it is not possible to give, except in a brief way, special references to the literature of fungi in any particular country, and the Sylloge, although indispensable, does not do away with the necessity of having a special index to the works in which our species are recorded. The need of such an index has been felt in all our universities where the study of descriptive mycology is pursued, as well as in the numerous experiment stations and other government establishments devoted to vegetable pathology. In the absence of such an index it has been necessary for different institutions to spend much time and money in duplicating the work begun by us in 1874, and for a long time we have wished to publish our index which, as it has been in progress for a longer period than any similar index in this country, is probably therefore more complete, in order that it might be used by all mycologists and prevent an unnecessary duplication of labor and expense. The cost of printing, however, was so great that it has

been impossible to obtain the means of publication until the Carnegie Institution offered to provide the funds for printing the volume of which the first part is now ready.

The Index, it should be borne in mind, does not purport to be a summary of all references to North American fungi, but is limited to those which concern the systematic mycologist, and does not include references to papers on fungicides and other technical and agricultural subjects as such, but cites them only when they also contain notes of interest to the systematist. The literature of these branches of applied mycology is already sufficiently fully given in different government publications and technical journals. Nor have we included, in general, references to works treating specially of the physiology of fungi, for the reason that physiological questions are from their nature general and not local. The physiology of North American fungi is not different from that of fungi of other parts of the world, whereas the study of our species from a systematic point of view has a definite local as well as a general importance. What is true of physiological writings is to a great extent true of cytological writings, but we have introduced references to important cytological works published in this country based on material collected here since they have a bearing on morphology and classification. Bacteria and Saccharomyçetes are excluded, as those groups at the present day are studied by specialists and not by those interested in what are commonly known as fungi proper.

With these exceptions the Index includes all the references to species of North American fungi known to us, but it should be remarked that in the case of a few species, as *Agaricus campestris*, which are very common and which from their popular interest have appeared over and over again in journals of every description, we have omitted many references and given only those which are of importance as showing their range or as furnishing good illustrations. As it is, we may perhaps be considered to have been over liberal. It should also be remarked that we have cited only references to North American species as they occur in North America and have not given references to North American species as they occur in Europe. A few perplexing cases have arisen in which new species have been described in Europe parasitic on plants recently imported from America. The supposition is in such cases that the fungi themselves were imported from America and we have accord-

ingly given notes on some of them, but in other cases it seemed to us doubtful whether the parasites were really American.

In the case of genera we have not thought it necessary to give special references except in the case of those peculiar to North America or first described in North America, or in cases where American writers have given critical notes on certain genera found in Europe as well as America. When we have had any reason for differing from other writers as to limits of genera our opinion is given in the form of notes.

We have endeavored to bring the references as nearly up to date as possible, but it was not practicable to hold in type so large a mass until the whole of the present part was finished. The reader must therefore expect to find the later pages more nearly up to date than the earlier ones, since pages 1–64 were struck off in December, 1903, while pages 225 to 312 were not printed until August, 1905. It is proposed to give at the end of the volume the addenda to the earlier pages. The progress of the work has been slow, partly owing to delays to be expected in starting a work of this kind, and also to the fact that the two large and very complicated genera, *Aecidium* and *Agaricus*, required a simultaneous arrangement of other genera to appear later.

A word should be said as to the system of classification and the limitations of genera and species which we have followed. In general, while giving as much information as we were able, we have tried as far as possible to avoid changing names in common use for many years. At the present day the Sylloge of Saccardo and the Pflanzenfamilien of Engler and Prantl may be said to be the two works on the classification of fungi in most general use, and we have preferred to follow them as far as possible, making the changes required in consequence of information obtained either from recent critical monographs by those who have made a special study of different orders and genera or from our own examination of American material. We are quite ready to admit that the present classification of fungi is not one which can be called more than temporary, but the time has not arrived when our knowledge of the fungi of the world is sufficiently advanced to make it possible to form a really natural and scientific system.

We have followed the principle of adopting the oldest specific name under which a species was described. We cannot say that

this method seems to us to be better than any other but, as it is, it is so generally adopted by mycologists and furthermore, since it was voted by the botanists at the recent Congress in Vienna that this plan should be followed in Spermaphytes it seems desirable that all botanists should conform to it. We do not, however, propose in adopting this system to follow it blindly, but in all cases we would accept an older name only when it is quite plain, and not merely possible, or somewhat probable, that the species described by an older writer was the same as that which is generally known under another more recent and more certain name. We have no scruples in declining to accept many of the names of older writers which have of late been substituted for more modern names since from the vagueness of the descriptions and the crudeness of the illustrations it is impossible in the absence of original specimens to be sure that the species were the same as those to which they have since been applied.

There are two categories of botanists: those who believe that nomenclature is an end rather than a means, to whom the changing of names to adapt them to a uniform, automatic system seems to be the important aim in science; and those who regard nomenclature as a necessary evil which can be mitigated by making as few changes as possible. Of these two categories, it is hardly necessary to say that we should prefer to be classed with the latter. Great as is the difficulty of recognizing the identity of the species of early writers in the case of Spermaphytes, it is still worse in the case of fungi, if we accept 1753 as the limit, for the early writers did not make use of the microscopical characters now considered necessary and we must confess that we feel that too much value should not be placed on original specimens of species in which the microscopic characters are important. It has happened in several cases that those who have examined original specimens of certain of the smaller Schweinitzian species do not agree as to their structure, for which the most probable reason is that Schweinitz, not using microscopic characters, did not distinguish between different species of the same general appearance. Such species we have relegated to the limbo of *species ignotæ* since we have felt under no moral obligation to make it appear that Schweinitz recognized distinctions which he certainly did not recognize. It is best not to make too violent attempts to interpret the older mycologists but to be content with letting the dead

bury their dead. The business of reviving corpses has been carried altogether too far in mycology. American mycologists, it must be confessed, are peculiarly gullible as far as accepting as authentic much that is offered to them in the way of treatises on the genera and species of earlier mycologists. An examination of some of them, at least, shows that they are as inaccurate as they are useless. No one who uses the Index can complain justly that we have not provided him with names enough, good, bad and indifferent, and those who examine it with care will probably be surprised at the large number of names which have been encumbering the literature of our fungi as *nomina nuda* or as names of species about which we are and probably always shall be ignorant. At the Vienna Congress it was voted to accept a list of certain genera of Spermaphytes whose names are to be retained regardless of strict priority. It is to be hoped that at the next congress a similar list of cryptogams will be presented so that in the case of genera clearly defined and generally recognized under names in use for many years, they may be regarded as fixed and exempt from future changes on the ground of priority.

Although the undersigned must be held responsible for the plan and general character of the Index, and must be held answerable for the defects which those making a practical use of it will undoubtedly detect, it is not to be supposed that a work involving so large an amount of labor could have been accomplished without the collaboration of several persons, and the writer wishes in this place to state in detail the manner in which the work has been conducted, and to give proper credit to those who have taken part in it. For a few years beginning in 1874, the indexing was done by the writer himself, but since 1883 his occupations have made it necessary to intrust the main part of the indexing itself to others, while he has had to limit himself to a general supervision of the work, to the examination of authentic specimens involved in settling the nomenclature, and to a search through contemporary foreign literature and scattered papers published in the earlier days of mycology bearing directly or indirectly on North American species. Since 1883 the indexing has been done by Mr. A. B. Seymour, with necessary clerical assistance, with the exception of the year 1885–86, when, during Mr. Seymour's absence, Prof. L. H. Pammel was in charge. By far the greater part of the work of indexing, it will be seen, has been

done by Mr. Seymour, and to his persistence under difficulties, his care and his interest in the subject, those who use the Index will be indebted. During the considerable number of years when there appeared no immediate prospect that the Index could be printed the accumulation of material went on until it was estimated that about 150,000 references had been brought together. When in 1903 the Carnegie Institution expressed to the writer its willingness under certain conditions to undertake the publication, it was necessary to revise the large mass of data and put it in form for printing since, owing to the numerous cross references, the cards could not be printed directly. Mr. Seymour then brought together the various cards of synonyms and arranged them critically in chronological order, or segregated them, as the case required. They were then revised by the writer to conform to the general plan adopted, and, in cases of disputed or confused synonymy, examinations of authentic specimens were made, and, where it seemed to be of interest, the results of the examinations taken in connection with collateral reading were embodied in the form of notes under different genera and species. Unless otherwise stated, the notes are all by the undersigned, and in cases where Mr. Seymour had made a critical examination the notes were written by him and are signed with his initials. For the arrangement and relations of the aecidia of Gymnosporangia, the *Laboulbeniaceæ*, *Entomophthoraceæ* and certain genera of other orders specially studied by him, we are indebted to Prof. R. Thaxter as well as for advice on general questions. We are indebted to Mr. A. P. D. Piguet for valuable suggestions made during the proof-reading. We also wish to acknowledge with thanks critical information furnished by the following mycologists: Prof. J. C. Arthur, Prof. G. F. Atkinson, Prof. E. A. Burt, Mr. J. B. Ellis, Prof. E. W. D. Holway, Prof. W. A. Kellerman, and Prof. C. H. Peck.

W. G. FARLOW.

CAMBRIDGE, Aug. 15, 1905.

PRINCIPAL ABBREVIATIONS OF NAMES OF AUTHORS AND PUBLICATIONS CITED.

A. & S.
Albertini, J. B. von and Schweinitz, L. D. von.

Abh. Nat. Ges. Halle.
Naturforschende Gesellschaft. Halle. Abhandlungen.

Abh. Nat. Verein. Bremen.
Naturwissenschaftlicher Verein. Bremen. Abhandlungen.

Acta Soc. Fauna Fl. Fennica.
Societas pro Fauna et Flora Fennica. Helsingfors. Acta.

Agr. Sci.
Agricultural Science. State College, Pa.

Allg. Forst. & Jagdzeit.
Allgemeine Forst-und Jagdzeitung. Frankfort a/M.

Am. Florist.
American Florist. Chicago.

Am. Fung.
One thousand American Fungi. C. McIlvaine & R. K. Macadam.

Am. Agriculturist.
American Agriculturist. New York.

Am. Gardening.
American Gardening. New York.

Am. Jour. Physiol.
American Journal of Physiology. Boston.

Am. Jour. Sci.
American Journal of Science and Arts. New Haven.

Am. Kitchen Mag.
American Kitchen Magazine. Boston.

Am. Mo. Micr. Jour.
American Monthly Microscopical Journal. Washington.

Am. Nat.
American Naturalist. Boston.

Am. Pomol. Soc.
American Pomological Society. Proceedings.

Am. Quart. Micr. Jour.
American Quarterly Microscopical Journal. New York.

Ann. Bot.
Annals of Botany. London.

Ann. Myc.
Annales Mycologici. Berlin.

Ann. Nat. Hist.
Annals and Magazine of Natural History. London.

Ann. N. Y. Acad.
New York Academy of Sciences. Annals.

Ann. N. Y. Lyceum.
Lyceum of Natural History of New York. Annals.

Ann. Sci. Nat.
Annales des Sciences Naturelles. Botanique. Paris.

Anniv. Mem. Boston Soc.
Anniversary Memoirs of Boston Society of Natural History.

Arth.
Arthur, J. C.

Asc. Lojk.
Ascomycetes Lojkani lecti in Hungaria Transsylvania et Galicia. H. Rehm.

Auct. Amer.
Auctores Americani.

B.
Berkeley, M. J.

B. & Br.
Berkeley, M. J. and Broome, C. E.

B. & C.
Berkeley, M. J. and Curtis, M. A.

Barthol.
Bartholomew, E.

Beitr. Biol. Pflanzen.
Beiträge zur Biologie der Pflanzen. Breslau.

Ber. Deutsch. Bot. Ges.
Deutsche botanische Gesellschaft. Berlin. Berichte.

Ber. Schles. Ges.
Schlesische Gesellschaft für vaterländische Cultur. Breslau. Jahresbericht.

Ber. Schweiz. Bot. Ges.
Schweizerische botanische Gesellschaft. Berichte.

Berl.
Berlese, A. N.

Berl. Icon.
Icones Fungorum. A. N. Berlese.

Berl. Icon. Phyc.
Icones Fungorum. Phycomycetes. A. N. Berlese.

Berl. & Vogl.
Berlese, A. N. and Voglino, P.

Bihang till K. Sv. Vet. Akad. Handl.
Kongliga Svenska Vetenskaps-Akademien. Stockholm. Bihang till Handlingar.

Biv.
Bivona-Bernardi, A. de.

Blox.
Bloxam, A.

Bolt.
Bolton, J.

Bomm. & Rous.
Bommer, J. E. and Rousseau, M.

Bon.
Bonorden, H. F.

Bot. Centralbl.
Botanisches Centralblatt. Cassel.

Bot. Gaz.
Botanical Gazette. Chicago.

Bot. Notiser.
Botaniska Notiser. Lund.

Bot. Zeit.
Botanische Zeitung. Leipzig.

Bot. 40th Parallel.
United States Geological Exploration of the 40th Parallel. Botany by Sereno Watson.

Bot. N. Car.
Geological and Natural History Survey of N. Carolina. Part 3, Botany. M. A. Curtis.

Bot. Surv. La.
Report of a Botanical Survey of southern and central Louisiana. Americus Featherman.

Bot. Surv. Nebr.
Botanical Survey of Nebraska. University of Nebraska. Lincoln.

Boud.
Boudier, E.

Bref.
Brefeld, O.

Bres.
Bresadola, G.

Bres. Henn. & Magn.
Bresadola, G., Hennings, P., and Magnus, P.

Briosi & Cav.
Briosi, G. and Cavara, F.

Brit. Columb. Dept. Agr.
Department of Agriculture. British Columbia. Victoria.

British Ured. & Ust.
British Uredineæ and Ustilagineæ. C. B. Plowright.

Brond.
Brondeau, L. de.

Bull.
Bulliard, P.

Bull. Ala. Exp. Sta.
Agricultural Experiment Station of the Alabama Polytechnic Institute. Auburn. Bulletin.

Bull. Boston Myc. Club.
Boston Mycological Club. Bulletin.

Bull. Bot. Dept. Jamaica.
Jamaica Botanical Department. Kingston. Bulletin.

Bull. Buf. Soc.
Buffalo Society of Natural Science. Bulletin.

Bull. Bussey Inst.
Bussey Institution. Harvard University. Bulletin.

Bull. Cal. Acad.
California Academy of Sciences. San Francisco. Bulletin.

Bull. Cent. Exp. Farm Can.
Canada. Central Experimental Farm. Ottawa. Bulletin.

Bull. Colo. Exp. Sta.
Colorado. Agricultural Experiment Station. Fort Collins. Bulletin.

Bull. Conn. Exp. Sta.
Connecticut Agricultural Experiment Station. New Haven. Bulletin.

Bull. Cornell Exp. Sta.
Cornell University, Agricultural Experiment Station. Ithaca. Bulletin.

Bull. Cornell Univ.
Cornell University. Ithaca. Bulletin.

Bull. Del. Exp. Sta.
Delaware College Agricultural Experiment Station. Newark. Bulletin.

Bull. Fla. Exp. Sta.
Florida Agricultural Experiment Station. Lake City. Bulletin.

Bull. Herb. Bois.
Herbier Boissier. Geneva. Bulletin.

Bull. Idaho Exp. Sta.
University of Idaho Agricultural Experiment Station. Moscow. Bulletin.

Bull. Ill. Lab.
Illinois State Laboratory of Natural History. Urbana. Bulletin.

Bull. Iowa Agr. Coll.
Iowa State College of Agriculture and the Mechanic Arts. Ames. Bulletin.

Bull. Ky. Exp. Sta.
Kentucky Agricultural Experiment Station. Lexington. Bulletin.

Bull. Lab. Bot. Siena.
Laboratorio ed Orto Botanico. Siena. Bulletino.

Bull. Md. Exp. Sta.
Maryland Agricultural Experiment Station. College Park. Bulletin.

Bull. Minn. Acad.
Minnesota Academy of Natural Sciences. Minneapolis. Bulletin.

Bull. Minn. Surv.
Geological and Natural History Survey of Minnesota. Bulletin.

Bull. Miss. Exp. Sta.
Mississippi Agricultural Experiment Station. Bulletin.

Bull. N. Car. Exp. Sta.
North Carolina Agricultural Experiment Station. West Raleigh. Bulletin.

Bull. N. Dak. Exp. Sta.
North Dakota Agricultural College. Government Agricultural Experiment Station for North Dakota. Bulletin.

Bull. Nat. Hist. Soc. N. B.
Natural History Society of New Brunswick. St. Johns. Bulletin.

Bull. Nebr. Exp. Sta.
Nebraska, University of. Agricultural Experiment Station of Nebraska. Lincoln. Bulletin.

Bull. N. Y. Bot. Gard.
New York Botanical Garden. Bulletin.

Bull. N. Y. Mus.
N. Y. State Museum of Natural History. Albany. Bulletin.

Bull. N. Y. Exp. Sta.
New York Agricultural Experiment Station. Geneva. Bulletin.

Bull. Oberlin College Lab.
Oberlin College Laboratory. Oberlin, Ohio. Bulletin.

Bull. Ohio Exp. Sta.
Ohio Agricultural Experiment Station. Wooster. Bulletin.

Bull. Ohio Univ.
Ohio State University. Columbus. Bulletin.

Bull. Pacific Univ.
Pacific University. Bulletin. Forest Grove, Oregon.

Bull. Penn. Dept. Agr.
Pennsylvania Department of Agriculture. Bulletin.

Bull. S. Dak. Exp. Sta.
South Dakota Agricultural College and Experiment Station. Brookings. Bulletin.

Bull. Soc. Bot. Belg.
Société royale de Botanique de Belgique. Bulletin.

Bull. Soc. Bot. Fr.
Société Botanique de France. Paris. Bulletin.

Bull. Soc. Myc. Fr.
Société Mycologique de France. Paris. Bulletin.

Bull. Tex. Exp. Sta.
Texas Agricultural Experiment Station. Bulletin.

Bull. Torr. Bot. Club.
Torrey Botanical Club. New York. Bulletin.

Bull. Univ. Iowa.
Laboratories of Natural History of the State University of Iowa. Bulletin.

Bull. U. S. Agr. Div. Bot.
United States Department of Agriculture, Division of Botany. Bulletin.

Bull. U. S. Agr. Office Exp. Sta.
United States Department of Agriculture, Office of Experiment Stations. Bulletin.

Bull. U. S. Agr. Pl. Industry.
United States Department of Agriculture, Bureau of Plant Industry. Bulletin.

Bull. U. S. Agr. V. P. P.
United States Department of Agriculture, Division of Vegetable Pathology and Physiology. Bulletin.

Bull. U. S. Agr. Veg. Pathol.
United States Department of Agriculture, Division of Vegetable Pathology. Bulletin.

Bull. Wash. Exp. Sta.
Washington Agricultural Experiment Station. Pullman. Bulletin.

Bull. Wash. Lab.
Washburn Laboratory of Natural History. Topeka, Kans. Bulletin.

Bull. W. Va. Exp. Sta.
West Virginia Agricultural Experiment Station. Morgantown. Bulletin.

Bull. Wis. Nat. Hist. Soc.
Wisconsin Natural History Society. Milwaukee. Bulletin.

Buxb.
Buxbaum, J.

C. & E.
Cooke, M. C. and Ellis, J. B.

C. & P.
Cooke, M. C. and Peck, C. H.

Can. Nat. & Geol.
Canadian Naturalist and Geologist. Montreal. Continued as Canadian Record of Science.

Carl.
Carleton, M. A.

Carm.
Carmichael, D.

Cast.
Castagne, L.

Cat. Pac. Fung.
Catalogue of the Pacific coast Fungi. H. W. Harkness and J. P. Moore.

Cat. Pl. Am. Sept.
Catalogus plantarum Americæ septentrionalis. H. Muhlenberg.

Cat. Pl. Amherst (Hitchcock).
Hitchcock, E. Catalogue of the plants growing without cultivation in the vicinity of Amherst College. Amherst, 1829.

Cat. Pl. Amherst (Frost in).
Tuckerman, E. and Frost, C. C. A catalogue of plants growing without cultivation within thirty miles of Amherst College. Amherst, 1875.

Cat. Pl. Cin.
Catalogue of plants, native and naturalized, collected in Cincinnati, Ohio. T. G. Lea.

Cat. Pl. La.
Catalogue provisoire des plantes de la Basse Louisiane. A. B. Langlois.

Cat. Pl. Mass.
Report on the Geology . . . of Massachusetts. Catalogue of the animals and plants of Massachusetts. E. Hitchcock.

Cat. Pl. N. J.
Geological Survey of New Jersey, Vol. 2, pt. 1. Catalogue of plants found in New Jersey. N. L. Britton. Fungi, J. B. Ellis. 1889.

Cat. Pl. N. Y.
Catalogue of plants of New York. J. Torrey, 1819.

Cat. Pl. R. I.
Plants of Rhode Island. J. L. Bennett, 1888.

Cda.
Corda, A. C. J.

Cent. Am. Fungi.
Central American Fungi (exsiccati). C. L. Smith. Iowa City, Iowa.

Centralbl. Bact.
Centralblatt für Bacteriologie und Parasitenkunde. Jena.

Ces.
Cesati, V.

Champ. Guad. et Martinique.
Enumération méthodique des Champignons recuellis à la Guadaloupe et a la Martinique. Duss.

Charleston Med. Jour. & Rev.
Charleston Medical Journal and Review.

Chev.
Chevallier, F.

Circ. U. S. Agr. Div. Bot.
United States Department of Agriculture, Division of Botany. Circular.

Circ. U. S. Agr. Div. Veg. Pathol.
United States Department of Agriculture, Division of Vegetable Pathology. Circular.

Cke.
Cooke, M. C.

Cke. & B.
Cooke, M. C. and Berkeley, M. J.

Clint.
Clinton, G. P.

Contr. Bot. Dept. Univ. Nebr.
Contributions from the Botanical Department of the University of Nebraska.

Contr. Bot. Vt.
Contributions to the Botany of Vermont. University of Vermont. Burlington.

Contr. U. S. Nat. Herb.
Contributions from the U. S. National Herbarium.

Country Gent.
Cultivator and Country Gentleman. Albany.

Critt. Agr.
Crittogamia Agraria. O. Comes.

Curr.
Currey, F.

Curt.
Curtis, William.

Cycl. Am. Hort.
Cyclopædia of American Horticulture. Bailey.

D By.
De Bary, A.

D C.
De Candolle, A. P.

De Not.
De Notaris, G.

Desm.
Desmazières, J. B.

Desv. Jour. de Bot.
Desvaux, A. N. Journal de Botanique. Paris.

Dicks.
Dickson, J.

Diet.
Dietel, P.

Diet. & Holw.
Dietel, P. and Holway, E. W. D.

Ditm.
Ditmar, L. P. F.

Dozy & Molkenb.
Dozy, F. and Molkenboer, J. H.

Dur. & Mont.
Durieu de Maisonneuve et Montagne, C.

E. F.
Economic Fungi (exsiccati). A. B. Seymour and F. S. Earle.

Ehrb.
Ehrenberg, C. G.

El.
Elenchus Fungorum. E. M. Fries.

Ell.
Ellis, J. B.

Ell. & Ev.
Ellis, J. B. and Everhart, B. M.

Ell. & Gall.
Ellis, J. B. and Galloway, B. T.

Endl.
Endlicher, S. L.

Engler, Bot. Jahrb.
Botanische Jahrbücher (Engler). Leipzig.

Enum. Lichens New Bedford.
Enumeration of the Lichens of New Bedford. H. Willey.

Epicr.
Epicrisis Systematis Mycologici. E. M. Fries.

Eriks.
Eriksson, J.

Essai Tax. Hymen.
Essai Taxonomique des Hymenomycètes. N. Patouillard.

Exp. Sta. Rec.
United States Department of Agriculture, Office of Experiment Stations. Washington. Experiment Station Record.

Farl.
Farlow, W. G.

Farmers' Bull. U. S. Agr.
United States Department of Agriculture. Farmers' Bulletin.

Fckl.
Fuckel, L.

Fl. Car.
Flora Caroliniana. Thomas Walter.

Fl. Dan.
Flora Danica.

Fl. Ind. Occ.
Flora Indiæ Occidentalis. O. Swartz.

Fl. Fr.
Flore Française. Lamarck et De Candolle.

Fl. Ludov.
Florula Ludoviciana. C. S. Rafinesque.

Fl. Miami Valley.
The Mycologic flora of the Miami Valley. Ohio. A. P. Morgan.

Fl. Nebr.
Flora of Nebraska. University of Nebraska. Lincoln.

Fres.
Fresenius, G.

Fung. Am.
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BOLD FACE TYPE indicates number of the volume.

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ROMAN NUMERALS (lower case), page numbers of works in which both Roman and Arabic figures are used in the originals.

d., description; *pl.*, plate; *f.*, figure.

n.n. Nomen novum.

nom. nud. Nomen nudum.

[ ] Secondary title.

( ) Paging of reprint.

* *Before a reference*, specimens in exsiccati.

* *After a reference*, signifies that it relates to foreign, not to American material.

? *Before a specific name*, signifies that it is doubtful whether the name is properly placed as a synonym.

? *After a specific name*, that it is doubtful whether in the references cited under it the species has been determined correctly.

Dates on which pages went to press:

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65– 96	July, 1904.
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193–224	July, 1905.
225–312	Aug., 1905.

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Berl. & Vogl. in Sacc. Syll. Add. **1-4**: 102. *d.* 31 Dec. 1886.
Cke. Grev. **16**: 18. Sept. 1887.
*Ell. & Ev. N. A. F. *2141.* Feb. 1889.
*Ell & Ev. Fung. Columb. *1316.* May 1899.

Acanthostigma occidentale, (Ell. & Ev.) Sacc., var. **minor,** (Ell. & Ev.) Sacc.
Sacc. Syll. **9**: 856. *d.* 15 Sept. 1891.
Ell. & Ev. Pyren. 156. *d.* May 1892.
Venturia occidentalis, Ell. & Ev., var. ***minor,*** Ell. & Ev.
Berl. & Vogl. in Sacc. Syll. Add. **1-4**: 102. *d.* 31 Dec. 1886.
Ell. & Ev. Jour. Myc. **2**: 43. *d.* April 1886.

Acanthostigma parasiticum, Ell. & Ev.
See ***Acanthostigma Ellisii,*** Sacc. & Syd.

Acanthostigma perpusillum, De Not.
De Not. Sfer. Ital. 85. *d. pl. 94.* 1863.*
Berl. Icon. **1**: 104. *d. pl. 101, f. 4.* 1892.
?Sphæria longispora, Ell.
Ell. Bull. Torr. Bot. Club **6**: 135. *d.* Feb. 1877.
Ell. & Ev. Pyren. 155. May 1892.
Berl. Icon. **2**: 142. Sept. 1899.
Sphæria cariosa, C. & E.
C. & E. Grev. **6**: 94. *d. pl. 100, f. 28.* March 1878.
Langlois, Cat. Pl. La. 34. 1887.
Sphæria decastyla, Cke.
Cke. Grev. **7**: 52. Dec. 1878.
Acanthostigma decastylum, Sacc.
Sacc. Syll. **2**: 210. *d.* 13 June 1883.
Ell. & Ev. Pyren. 155. *d. pl. 19, f. 1-4.* May 1892.
Millsp. & Nutt. Publ. Field. Columb. Mus. Bot. **1**: 142. Jan. 1896.
Zignoella cariosa, Sacc.
Sacc. Syll. **2**: 215. *d.* 13 June 1883.
Ell. in Cat. Pl. N. J. 519. 1889.
Ophioceras longisporum, Sacc.
Sacc. Syll. **2**: 360. *d.* 13 June 1883.
Ell. in Cat. Pl. N. J. 527. 1889.
Venturia decastyla, Cke.
Cke. Grev. **16**: 18. Sept. 1887.
Lasiosphæria subvelutina, Ell. & Ev.
Ell. & Ev. Jour. Myc. **3**: 117. *d.* Oct. 1887.
Sacc. Syll. **9**: 851. *d.* 15 Sept. 1891.
Berl. Icon. **1**: 115. 1892.
Psilosphæria cariosa, Cke.
Cke. Grev. **16**: 51. Dec. 1887.
Ceratostomella longispora, Cke.
Cke. Grev. **17**: 50. March 1889.

Acanthostigma pulchrisetum, Sacc.
See ***Eriosphæria pulchriseta,*** Sacc.

Acanthostigma Saccardioides, Sacc.
See ***Acanthostigma Berenice,*** Sacc.

Acanthostigma Scopula, (C. & P.) Pk.
Pk. Bull. N. Y. Mus. **1**[2]: 22. *d.* Jan. 1888.
Ell. & Ev. Pyren. 154. *d.* May 1892.
Berl. Icon. **1**: 103. *d. pl. 101, f. 1.* 1892.
Sphæria Scopula, C. & P.
C. & E. Grev. **6**: 13. Sept. 1877.
C. & E. Grev. **6**: 94. March 1878.
Cke. Grev. **7**: 52. Dec. 1878.
*Ell. N. A. F. *184.* 1878.
Pk. Rept. N. Y. Mus. **32**: 51. *d.* 1886.
Langlois, Cat. Pl. La. 34. 887.

Lasiosphæria Scopula, Sacc.
Cke. Grev. **16**: 16. Sept. 1887.
Ell. in Cat. Pl. N. J. 515. 1889.
Sacc. Syll. **9**: 852. *d.* 15 Sept. 1891.

Acanthostigma seopulorum, Ell. & Ev.
Ell. & Ev. Proc. Phil. Acad. **1895**: 414. *d.* Nov. 1895.
Sacc. Hedw. **35**: xxx. 25 Feb. 1896. [Reportorium no. 7.]
Sacc. & Syd. Syll. **14**: 590. *d.* 20 Aug. 1899.

Acanthostigma Sequoiæ, (Plowr.) Sacc.
Sacc. Syll. **2**: 208. *d.* 13 June 1883.
Ell. & Ev. Pyren. 156. *d.* May 1892.
Berl. Icon. **1**: 105. 1892.
Lindau in Engler & Prantl, Pflanzen-fam. **1**[1]: 398. Feb. 1897.
Venturia Sequoiæ, Plowr.
Plowr. Grev. **7**: 74. *d. pl. 120, f. 3.* Dec. 1878.
Hark. & Moore, Cat. Pac. Fung. 45. Feb. 1880.
Cke. Grev. **16**: 18. Sept. 1887.

Acanthostigma spinosum, (Hark.) Ell. & Ev.
Ell. & Ev. Pyren. 156. *d.* May 1892.
Rosellinia spinosa, Hark.
Hark. Bull. Cal. Acad. **1**: 42 (22). *d.* Feb. 1884.
Berl. & Vogl. in Sacc. Syll. Add. **1-4**: 43. *d.* 31 Dec. 1886.
Sacc. Syll. **9**: 504. *d.* 15 Sept. 1891.
Coniochæta spinosa, Cke.
Cke. Grev. **16**: 16. Sept. 1887.

Acerbia bacillata, (Cke.) Sacc.
?Sphæria longispora, Ell. See note in Berl. Icon. **2**; 242. Sept. 1899.

Acetabula, Fckl.
Fckl. Symb. 330. *d.* 1869.

NOTE. In Bull. Torr. Bot. Club **30**: 93. 28 Feb. 1903 the name Phleboscyphus is substituted for Acetabula, since there is an Acetabulum L. See also species given under Phleboscyphus.

Acetabula Acetabulum, Underw. & Earle.
See ***Acetabula vulgaris***, Fckl.

Acetabula cinnamomeolutescens, (S.) Sacc.
Sacc. Syll. **8**: 62. *d.* 20 Dec. 1889.
Peziza cinnamomeolutescens, S.
S. Syn. Car. 117 (91) no. 1165. *d.* 1822.
Fr. S. M. **2**: 45. 1822.
Spreng. in L. Syst. Veg. 16 ed. **4**[1]: 499. *d.* 1827.
S. Syn. Am. Bor. 170 no. 745. 1834.
M. A. Curtis, Bot. N. Car. 131. 1867.
Cke. Bull. Buf. Soc. **2**: 287. March 1875.

Acetabula Mitrula, (S.) Sacc.
Sacc. Syll. **8**: 63. *d.* 20 Dec. 1889.
Peziza Mitrula, S.
S. Syn. Car. 118 (92) no. 1184. *d.* 1822.
Fr. S. M. **2**: 45. 1822.
Spreng. in L. Syst. Veg. 16 ed. **4**[1]: 499. *d.* 1827.
Hitchcock, Cat. Pl. Amherst 62. 1829.
Hitchcock, Cat. Pl. Mass. 647. 1833. 2 ed. 648 (128). 1835.
S. Syn. Am. Bor. 170 no. 746. 1834.
M. A. Curtis, Bot. N. Car. 131. 1867.
Cke. Bull. Buf. Soc. **2**: 287. March 1875.

Acetabula pullula, (Johnson) Sacc. (spelled **paulula.**)
Sacc. Syll. **8**: 63. *d.* 20 Dec. 1889.

Peziza pullula, Johnson.
Johnson, Bull. Minn. Acad. **1**: 342. *d.* 1878.

Acetabula sulcata, (P.) Fckl.
Sacc. Syll. **8**: 62. *d.* 20 Dec. 1889.
Peziza sulcata, P.
S. Syn. Am. Bor. 170 no. 744. 1834.
Cke. Bull. Buf. Soc. **2**: 287. March 1875.
Cke. Mycographia 108. *d. pl. 47, f. 185.* Oct. 1876.
Pk. Rept. N. Y. Mus. **30**: 59. Sept. 1878.

Acetabula vulgaris, Fckl.
Fckl. Symb. 330. *d.* 1869.*
Sacc. Syll. **8**: 59. *d.* 20 Dec. 1889.
McClatchie, Proc. S. Calif. Acad. Sci. **1**: 364. 5 June 1897.
Longyear, Rept. Mich. Bd. Agr. **1898**: 94. 1899
Fairman, Proc. Rochester Acad. **3**: 214. March 1900.
Durand, Bull. Torr. Bot. Club **27**: 473. *d.* 29 Sept. 1900.
Peziza Acetabulum, L.
Hitchcock, Cat. Pl. Amherst 62. 1829.
Hitchcock, Cat. Pl. Mass. 647. 1833. 2 ed. 648 (128). 1835.
Lea, Cat. Pl. Cin. 72. 1849.
James, Jour. Cin. Soc. **2**: 67 (26). April 1879.
Lea, Jour. Cin. Soc. **5**: 215 (19). Dec. 1882.
M. A. Curtis, Bot. N. Car. 131. 1867.
Frost, Proc. Boston Soc. **12**: 80. 1869.
Cke. Bull. Buf. Soc. **2**: 287. March 1875.
Frost in Cat. Pl. Amherst 89. 1875.
Cke. Grev. **6**: 141. June 1878.
C. & E. Grev. **7**: 40. Dec. 1878.
Cke. Mycographia 107. *d. pl. 47, f. 183.* Oct. 1876.
Brendel, Flora Peoriana 1 ed. 362 (94). 1882.
*Rav. Fung. Am. *764.* 1882.
Cragin, Bull. Wash. Lab. **1**: 70. Jan. 1885.
Brendel, Fl. Peoriana 2 ed. 69. 1887.
Cobb, List Pl. Amherst, 47. 1887.
Bennett, Cat. Pl. R. I. 91. 1888.
Ell. in Cat. Pl. N. J. 544. 1889.
Acetabula Acetabulum, Underw. & Earle.
Underw. & Earle, Bull. Ala. Exp. Sta. 80: 200. 28 June 1897.
Phleboscyphus acetabulum, Clements.
Clements, Bull. Torr. Bot. Club **30**: 93. 28 Feb. 1903.

Achlya, sp. indet. Hine.
See ***Achlya racemosa,*** var. ***stelligera,*** Cornu.

Achlya Americana, Humphrey.
Humphrey, Tr. Am. Phil. Soc. **17**: 116. *d. pl. 14, f. 9, 10. pl. 15, f. 18, 24, 25, 29. pl. 16, f. 30–36. pl. 18, f. 69–73.* 1893.
Schrt. in Engler & Prantl, Pflanzen-fam. 1^1: 99. July 1893.
Sacc. Syll. **11**: 245. July 1895.
Atk. Bull. Cornell Univ. 3: 14. 25 June 1897.
Earle in Mohr, Contr. U. S. Nat. Herb. **6**: 151. 31 July 1901.

Achlya apiculata, D By.
D By. Bot. Zeit. **46**: 635. *pl. 10, f. 3–5.* 1888.*
Humphrey, Tr. Am. Phil. Soc. **17**: 120. *d. pl. 15, f. 26, 27. pl. 19, f. 82–86.* 1893.
Atk. Bull. Cornell Univ. 3: 14. 25 June 1897.
Earle in Mohr, Contr. U. S. Nat. Herb. **6**: 151. 31 July 1901.

Achlya cornuta, Archer.
Humphrey, Tr. Am. Phil. Soc. **17**: 126. *d. pl. 20, f. 103, 104.* 1893.

Achlya megasperma, Humphrey.
Humphrey, Tr. Am. Phil. Soc. **17**: 118. *d. pl. 18, f. 74–77.* 1893.
Sacc. Syll. **11**: 245. July 1895.

Achlya oblongata, D By.
Humphrey, Tr. Am. Phil. Soc. **17**: 121. *d. pl. 19, f. 87–89.* 1893.

Achlya oblongata, D By., var. **globosa,** Humphrey.
Humphrey, Tr. Am. Phil. Soc. **17**: 122. *d. pl. 19, f. 90, 91.* 1893.
Atk. Bull. Cornell Univ. 3: 14. 25 June 1897.
Earle in Mohr, Contr. U. S. Nat. Herb. **6**: 151. 31 July 1901.

Achlya papillosa, Humphrey.
Humphrey, Tr. Am. Phil. Soc. **17**: 125. *d. pl. 20, f. 99–102.* 1893.
Sacc. Syll. **11**: 245. July 1895.

Achlya polyandra, Hildeb.
Hine, Am. Quart. Micr. Jour. **1**: 141 (14). *pl. 6, f. 15.* Jan. 1879.
Humphrey, Tr. Am. Phil. Soc. **17**: 119. *d. pl. 18, f. 78–81.* 1893.

Achlya prolifera, Nees.
Leidy, Proc. Phil. Acad. **5**: 8. 1850.
Bessey, Bull. Iowa Agr. Coll. **1884**: 139. Jan. 1885.

Achlya prolifera, Pringsh.
See ***Saprolignia ferax,*** Kütz.

Achlya racemosa, Hildeb.
Hine, Am. Quart. Micr. Jour. **1**: 20 (3). Oct. 1878.
Humphrey, Rept. Mass. Exp. Sta. **9**: 233. April 1892.
Humphrey, Tr. Am. Phil. Soc. **17**: 122. *d. pl. 19, f. 92–95.* 1893.

Achlya racemosa, Hildeb., var. **stelligera,** Cornu.
Humphrey, Tr. Am. Phil. Soc. **17**: 123. *d. pl. 19, f. 96–98.* 1893.

Achlya, sp. indet. Hine.
Hine, Am. Quart. Micr. Jour. **1**: 136 (9). *pl. 6, f. 1–14.* Jan. 1879.

Achlya racemosa, var. indet. Hine.
Hine, Am. Quart. Micr. Jour. **1**: 140 (13). Jan. 1879.

Acinophora, Raf.
See ***Arachnion,*** S.

Acinophora aurantiaca, Raf.
See ***Arachnion? aurantiacum,*** De Toni.

Acinula candicans, Fr.
S. Syn. Am. Bor. 266 no. 2409. 1834.

Acladium, Lk.

NOTE. This genus is referred by Pound and Clements to Haplaria.

Acladium conspersum, Lk.
S. Syn. Am. Bor. 276 no. 2582. 1834.
Cke. Bull. Buf. Soc. **3**: 201. July 1877.

Acladium densissimum, S.
S. Syn. Am. Bor. 276 no. 2584. *d.* 1834.
Cke. Bull. Buf. Soc. **3**: 201. July 1877.
Sacc. Syll. **4**: 88. *d.* 10 April 1886.

Acladium microspermum, Lk.
S. Syn. Am. Bor. 276 no. 2583. 1834.
Cke. Bull. Buf. Soc. **3**: 201. July 1877.

Acompsomyces, Thax.
Thax. Proc. Am. Acad. **37**: 37. *d.* June 1901 and Bot. Centralbl. **88**: 229. *d.* 14 Nov. 1901.
Thax. Proc. Am. Acad. **38**: 21. *d.* 24 June 1902.

Acompsomyces Atomariæ, Thax.
Thax. Proc. Am. Acad. **38**: 22. *d.* 24 June 1902.

Acompsomyces Corticariæ, Thax.
Thax. Proc. Am. Acad. **37**: 37. *d.* June 1901.
Sacc. & Syd. Syll. **16**: 692. *d.* 1 Feb. 1902.

Acompsomyces pauperculus, Thax.
Thax. Proc. Am. Acad. **38**: 23. *d.* 24 June 1902.

Acontium, Morg.
Morg. Jour. Myc. **8**: 4. *d.* 31 May 1902.

Acontium album, Morg.
Morg. Jour. Myc. **8**: 4. *d.* 31 May 1902.

Acontium minus, Morg.
Morg. Jour. Myc. **8**: 5. *d.* 31 May 1902.

Acontium velatum, Morg.
Morg. Jour. Myc. **8**: 5. *d.* 31 May 1902.

Acremoniella atra, (Cda.) Sacc.
Webber, Rept. Nebr. Agr. **1889**: 222 (82). 1890.

Acremoniella fusca, (Schm.) Sacc.
Sacc. Syll. **4**: 302. *d.* 10 April 1886.*
Acremonium fuscum, Schm.
S. Syn. Am. Bor. 283 no. 2697. 1834.
Bundy, Geol. Wis. 1873–79 **1**: 401. 1883.

Acremoniella melanosperma, (S.) Sacc.
Sacc. Syll. **4**: 303. *d.* 10 April 1886.
Acremonium nigrospermum, S.
S. Syn. Am. Bor. 283 no. 2699. *d.* 1834.

Acremonium, Lk.
Pound & Clements, Minn. Bot. Studies **9**: 669. *d.* 30 Nov. 1896.

Acremonium, sp. indet.
Humphrey, Rept. Mass. Exp. Sta. **9**: 228. April 1892.
Humphrey, Rept. Mass. Exp. Sta. **10**: 230 (22). *pl. 4, f. 27–29.* 1893.
Sturgis, Rept. Conn. Exp. Sta. **24**: 268. 1901.

Acremonium flexuosum, Pk.
Pk. Rept. N. Y. Mus. **32**: 44. *d.* 1886.
Pk. Bull. N. Y. Mus. **1**[2]: 19. *d. pl. 1, f. 16–18.* Jan. 1888.
Sacc. Syll. **10**: 531. *d.* 30 June 1892.

Acremonium fuscum, Schm.
See ***Acremoniella fusca,*** Sacc.

Acremonium nigrospermum, S.
See ***Acremoniella melanosperma,*** Sacc.

Acremonium nitidum, Mart.
S. Syn. Am. Bor. 283 no. 2698. 1834.

Acremonium verticillatum, Lk.
S. Syn. Am. Bor. 283 no. 2696. 1834.

Acrocystis, Ell. & Halsted.
Halsted, Bull. N. J. Exp. Sta. 76: 14-20. *f. 11–13.* 28 Nov. 1890.
Sacc. Syll. **9**: 339. 15 Sept. 1891.
Lindau in Engler & Prantl, Pflanzen-fam. **1**[1]**: 530. Feb. 1900.

Acrocystis Batatas, Ell. & Halsted.
Halsted, Bull. N. J. Exp. Sta. 76: 14–20. *f. 11–13.* 28 Nov. 1890.
Sacc. Syll. **9**: 339. 15 Sept. 1891.
Halsted, Bull. N. J. Exp. Sta. M: 23 Nov. 1891.
Halsted, Rept. N. J. Exp. Sta. **1894**: 359. 1895.
Townsend, Bull. Md. Exp. Sta. 60: 156. *f. 52, 53.* March 1899.

Selby, Bull. Ohio Exp. Sta. 121 : 56. Sept. 1900.
Sturgis, Rept. Conn. Exp. Sta. **24** : 289. 1901.

Aerospermum album, Pk.
Pk. Rept. N. Y. Mus. **32** : 38. *d.* 1886.
Pk. Bull. N. Y. Mus. **1**[2] : 24. *d.* Jan. 1888.
Sacc. Syll. **9** : 1129. *d.* 15 Sept. 1891.
Ell. & Ev. Pyren. 728 *d.* May 1892.
Olson, Bot. Gaz. **23** : 370. 21 May 1897.

Aerospermum compressum, Tode.
Fr. S. M. **2** : 245. *d.* 1822.
Grev. Scot. Crypt. Fl. **4** : *pl. 182.* 1826.
S. Syn. Am. Bor. 266 no. 2412. 1834.
M. A. Curtis, Bot. N. Car. 116. 1867.
B. & C. Jour. Linn Soc. **10** : 352. 1869.
Cooke, Handbook 430. *d.* 1871.
Pk. Rept. N. Y. Mus. **25** : 85. Sept. 1873.
B. Grev. **4** : 161 (199). June 1876.
Thm. Pilz. Weinstk. 200. *d.* 1878.
Sacc. Syll. **2** : 807. *d.* 13 June 1883.
Cke. Grev. **12** : 113. June 1884.
*Ell. N. A. F. *1318.* 1885.
Ell. & Ev. Jour. Myc. **3** : 4. *d.* Jan. 1887.
Langlois, Cat. Pl. La. 27. 1887.
Ell. in Cat. Pl. N. J. 513. 1889.
Ell. & Ev. Pyren. 67. *d.* May 1892.
*Pazschke, Fung. Eur. *3867.* Nov. 1892.
Kellerm. & Werner, Geol. Ohio **7**[2] : 361. Jan. 1895.
Tracy & Earle, Bull. Miss. Exp. Sta. 34 : 105. May 1895.
Lindau in Engler & Prantl, Pflanzen-fam. **1**[1] : 278. *f. 201.* Dec. 1896.
Olson, Bot. Gaz. **23** : 370. 21 May 1897.
Clavaria herbarum, P.
Muhl. Cat. Pl. Am. Sept. 2 ed. 108. 1818.
S. Syn. Car. 113 (87) no. 1109. 1822.
Clavaria compressa, Purt.
S. Syn. Am. Bor. 182 no. 1039. 1834.
Sacc. Cub. & Manc. Syll. **6** : 709. *d.* 1 Aug. 1888.
Ell. in Cat. Pl. N. J. 495. 1889.

Aerospermum conicum, P.
S. Syn. Am. Bor. 266 no. 2413. 1834.

Aerospermum cornutum, Fr.
S. Syn. Am. Bor. 266 no. 2414. 1834.

Aerospermum corrugatum, Ell.
Ell. Bull. Torr. Bot. Club **8** : 124. *d.* Nov. 1881.
Sacc. Syll. **2** : 808. *d.* 13 June 1883.
Cke. Grev. **12** : 113. June 1884.
Ell. & Ev. Jour. Myc. **3** : 5. *d.* Jan. 1887.
Hark. Bull. Cal. Acad. **1** : 167. Feb. 1885.
*Ell. & Ev. N. A. F. *2055.* March 1888.
Olson, Bot. Gaz. **23** : 370. 21 May 1897.
Acrospermum fultum, Hark.
Hark. Bull. Cal. Acad. **1** : 47 (27). *d.* Feb. 1884.
Cke. Grev. **12** : 113. June 1884.
Cke. Grev. **13** : 8. Sept. 1884.
Berl. & Vogl. in Sacc. Syll. Add. **1-4** : 273. *d.* 31 Dec. 1886.
Sacc. Syll. **9** : 1129. *d.* 15 Sept. 1891.
Olson, Bot. Gaz. **23** : 370. 21 May 1897.

Acrospermum foliicolum, B.
*Rav. Fung. Car. **2**: *65*. 1853.
M. A. Curtis, Bot. N. Car. 116. 1867.
B. Grev. **4**: 161 (199) no. 1000. *d*. June 1876.
Cke. Ann. N. Y. Acad. **1**: 184. May 1878.
*Rav. Fung. Am. *734*. 1882.
Sacc. Syll. **2**: 808. *d*. 13 June 1883.
Cke. Grev. **12**: 113. June 1884.
Ell. & Ev. Jour. Myc. **3**: 4. *d*. Jan. 1887.
*Ell. & Ev. N. A. F. *2149*. Feb. 1889.
*Ell. & Ev. N. A. F. *2629*. Feb. 1891.
Ell. & Ev. Pyren. 67. *d*. May 1892.
Olson, Bot. Gaz. **23**: 370. 21 May 1897.
Earle in Mohr, Contr. U. S. Nat. Herb. **6**: 164. 31 July 1901.
Acrospermum Ravenelii, Cke?
*Cke. in Rav. Fung. Am. *735*. 1882.
NOTE. Probably the same as *A. foliicolum*, B. according to Ell. & Ev. Pyren. 68.

Acrospermum fultum, Hark.
See ***Acrospermum corrugatum,*** Ell.

Acrospermum graminum, Lib.
Lib. Pl. Crypt. Ard. *33*. *d*. 1830.*
Pk. Rept. N. Y. Mus. **30**: 52. Sept. 1878.
Hark. Bull. Cal. Acad. **1**: 167. Feb. 1885.
Wint. & Demet. Hedw. **24**: 198 (22). Oct. 1885.
Ell. & Ev. Pyren. 67. *d*. May 1892.
Olson, Bot. Gaz. **23**: 370. 21 May 1897.
Henn. Hedw. **37**: 275. 31 Dec. 1898.

Acrospermum Ravenelii, B. & C.
B. Grev. **4**: 161 (199) no. 999. *d*. June 1876.
Thm. Pilz. Weinstk. 199. *d*. 1878.
Sacc. Syll. **2**: 808. *d*. 13 June 1883.
Cke. Grev. **12**: 113. June 1884.
Ell. & Ev. Jour. Myc. **3**: 5. *d*. Jan. 1887.
Ell. & Ev. Jour. Myc. **3**: 116. *d*. Oct. 1887.
Ell. & Ev. Pyren. 68. *d*. May 1892.
Olson, Bot. Gaz. **23**: 370. 21 May 1897.

Acrospermum Ravenelii, Cke. in Rav. F. Am. 735.
See ***Acrospermum foliicolum,*** B.

Acrospermum urceolatum, Olson.
Olson, Bot. Gaz. **23**: 371. *d. pl. 29*. 21 May 1897 and Rey. Myc. **22**: 43. *d. pl. 198, f. 7–9*. Jan. 1900.
Lindau & Syd. Hedw. **37**: xxxv. 9 April 1898. [Beiblatt no 7.]
Sacc. & Syd. Syll. **14**: 724. *d*. 20 Aug 1899.

Acrospermum viridulum, B. & C.
M. A. Curtis, Bot. N. Car. 116. 1867.
B. Grev. **4**: 161 (199) no. 1001. *d*. June 1876.
Cke. Ann. N. Y. Acad. **1**: 184. May 1878.
*Ell. N. A. F. *857*. 1882.
Sacc. Syll. **2**: 808. *d*. 13 June 1883.
Cke. Grev. **12**: 113. June 1884.
Ell. & Ev. Jour. Myc. **3**: 4. *d*. Jan. 1887.
Ell. in Cat. Pl. N. J. 513. 1889.
Ell. & Ev. Pyren. 67. *d*. May 1892.
Olson, Bot. Gaz. **23**: 370. 21 May 1897.

Acrosporium fasciculatum, Grev.*
See ***Oospora fasciculata,*** Berl. & Vogl.

Acrostalagmus, Cda.
Pound & Clements, Minn. Bot. Studies **9**: 665. *d.* 30 Nov. 1896.

Acrostalagmus cinnabarinus, Cda.
Phil. Grev. **5**: 116. March 1877.
Hark. & Moore, Cat. Pac. Fung. 32. Feb. 1880.
Webber, Rept. Nebr. Agr. **1889**: 221 (81). 1890.
McClatchie, Proc. S. Calif. Acad. **1**: 376. 5 June 1897.
Pk. Rept. N. Y. Mus. **53**: 848. March 1901.

Acrostalagmus tetraclados, A. L. Smith.
Smith, A. L., Jour. Linn. Soc. **35**: 11. *d. pl. 1, f. 9, 10.* 1 April 1901. West Indies.

Acrostalagmus, sp. indet.
MacMillan, Bull. Torr. Bot. Club **19**: 10. *pl. 123.* Jan. 1892.
Pound & Clements, Minn. Bot. Studies **9**: 665. *d.* 30 Nov. 1896.

Acrothamnium violaceum, Nees.
S. Syn. Am. Bor. 275 no. 2562. 1834.

NOTE. See Sacc. Syll. **4**: 761. 10 April 1886. Is this perhaps an Hypochnus?

Acrothecium, (Preuss) Sacc. emend.

NOTE. *Acrothecium* founded by Corda as a subgenus of *Trichothecium*, Icones **2**: 10, 1838, with the species *A. parasitans*, which is placed in the genus *Blastotrichum*, Sacc. Syll. **4**: 191, 1886, was raised to generic rank by Preuss, Linnæa **24**: 110, 1851, where Corda's generic description was retained and the species *A. multisporum* described. The latter species was again described and figured in Sturm's Deutschlands Flora, 3 Abt., xxx, 85, f. 43, of which the exact date is uncertain, but apparently about 1851 or 1852. The description of the genus in Sturm is again Corda's original description with the addition of a (?) after one word. In Michelia **1**: 75, 1 June 1877, Saccardo extended the genus to include *Cordana*, Preuss and *Acrotheca* Fuckel without generic description. In Michelia **2**: 29, 25 April 1880, the genus was described by Saccardo and the authority given as Corda, but in Sacc. Syll. **4**: 483, 1886, the authority is given as (Preuss) Sacc. emend. Lindau in Engler & Prantl, Pflanzen-fam. 1^{1**}: 481, follows Saccardo's limitations, but gives Preuss as the authority.

Acrothecium crustaceum, (S.) Sacc.
Sacc. Syll. **4**: 485. *d.* 10 April 1886.
Dactylium crustaceum, S.
S. Syn. Am. Bor. 283 no. 2706. *d.* 1834.

Acrothecium delicatulum, B. & Br.
Johnson, Bull. Minn. Acad. **1**: 367. 1880.

Acrothecium melanopus, (S.) Sacc.
Sacc. Syll. **4**: 485. *d.* 10 April 1886.
Dactylium melanopus, S.
S. Syn. Am. Bor. 283 no. 2705. *d.* 1834.

Acrothecium obovatum, C. & E.
C. & E. Grev. **5**: 50. *d. pl. 80, f. 13.* Dec. 1876.
Cke. Jour. Queckett Micr. Club **4**: *pl. 27, f. 30.* 1877.
Sacc. Syll. **4**: 484. *d.* 10 April 1886.
Ell. in Cat. Pl. N. J. 568. 1889.

Acrothecium recurvatum, Morg.
Morg. Jour. Cin. Soc. **18**: 44. *d.* Dec. 1895.
Sacc. Hedw. **35**: xlviii. 25 Feb. 1896. [Reportorium no. 7.]
Sacc. & Syd. Syll. **14**: 1089. *d.* 20 Aug. 1899.

Acryophyton tuberculatum, Leb.
See ***Isaria Sphingum,*** S.

Actidium caricinum, S.
S. Syn. Am. Bor. 240 no. 2019. *d.* 1834.
Cke. Bull. Buf. Soc. **3**: 36. Nov. 1875.
Sacc. Syll. **2**: 739. *d.* 13 June 1883.

Actidium Crotalariæ, S. MS.
See ***Parodiella grammodes,*** Cke.

Actidium ? diatrypoides, Cke.
Cke. Grev. **7**: 49. Dec. 1878.
Sacc. Syll. **2**: 739. 13 June 1883.
Ell. & Ev. Pyren. 685. May 1892.

Actigea, Raf.
See ***Scleroderma,*** P.

Actigea multifida, Raf.
See ***Scleroderma flavidum,*** Ell. & Ev., var.

Actigea sicula, Raf.
See ***Scleroderma Geaster,*** Ell. & Ev., var.

Actiniceps, B. & Br.
Pound & Clements, Minn. Bot. Studies **9**: 727. *d.* 31 May 1897.

Actiniceps Besseyi, Macmillan.
See ***Volutella ciliata,*** Fr., var. ***stipitata,*** (Lib.) Sacc.

NOTE. An authentic specimen of this species on examination seems to us to be the same as *Volutella ciliata,* Fr., var. *stipitata,* Sacc.

Actinocladium Penicillus, Fr.
See ***Sporocybe concentrica,*** Sacc.

Actinodermium Sterrebeckii, Nees.
See ***Geaster Linkii,*** Spreng.

Actinomyces Bovis, Harz.

NOTE. Information about this species is to be sought in works on animal pathology.

Actinonema Psoraleæ, Ell. & Ev.
Ell. & Ev. Proc. Phil. Acad. **1893**: 159. *d.* 28 Feb. 1893.
Sacc. Syll. **11**: 526. *d.* July 1895.
Smyth, Tr. Kans. Acad. **15**: 71. March 1898.

Actinonema Rosæ, (Lib.) Fr.
Sacc. Syll. **3**: 408. *d.* 15 Dec. 1884.
Pound, Bull. Nebr. Exp. Sta. **1**: 357 (87). 18 Dec. 1889.
Humphrey, Rept. Mass. Exp. Sta. **7**: 229. 1889.
Webber, Rept. Nebr. Agr. **1889**: 218 (78). 1890.
Earle, Bull. U. S. Agr. Veg. Pathol. 11: 88. 1890.
Scribner, Rept. U. S. Agr. **1887**: 366. *pl. 8, f. 1–3. pl. 9, f. 1–4.* 1888.
Windle, Am. Florist **3**: 424. *f. 1–3.* 1 May 1888 and Bot. Gaz. **13**: 196. July 1888.
Windle, Am. Mo. Micr. Jour. **9**: 128–130. *f. 1–3.* July 1888.
Maynard, Bull. Hatch Exp. Sta. 4: 10. April 1889.
Kelsey, Jour. Myc. **5**: 81. June 1889.
Jennings, Bull. Tex. Exp. Sta. 9: 23. May 1890.
Scrib. Orchard & Garden **12**: 57. *f. 267, 268.* March 1890.
Ell. & Ev. Pyren. 605. May 1892.
Halsted, Rept. N. J. Exp. Sta. **1891**: 303. 1892.
Halsted, Rept. N. J. Exp. Sta. **1892**: 280. 1893.
Underwood, Proc. Ind. Acad. **1893**: 43. Aug. 1894.
Sturgis, Rept. Conn. Exp. Sta. **17**: 86. 1894.
*Ell. & Ev. Fung. Columb. *277.* 1894.
Halsted, Rept. N. J. Exp. Sta. **1894**: 381. *f. 63.* 1895.

Tracy & Earle, Bull. Miss. Exp. Sta. 34 : 109. May 1895.
Halsted, Am. Gardening **16** : 226. 22 June 1895.
McClatchie in Reid's Hist. Pasadena 616. 1895.
Millsp. & Nutt. Publ. Field Columb. Mus. Bot. **1** : 116. Jan. 1896.
McClatchie, Proc. S. Calif. Acad. **1** : 374. 5 June 1897.
Halsted, Florists' Exchange **9** : 917. *f. 1a.* 9 Oct. 1897.
Atk. Bull. Cornell Univ. 3 : 28. 25 June 1897.
Underw. & Earle, Bull. Ala. Exp. Sta. 80 : 163. 28 June 1897.
*Seymour & Earle, E. F. *469.* 15 Oct. 1897.
Stevens, Rept. Ohio Acad. **5** : 63. 1897.
Orton, Rept. Vt. Exp. Sta. **12** : 171. Dec. 1899 and Contr. Bot. Vt. 7 : 171. Dec. 1899.
Lindau in Engler & Prantl, Pflanzen-fam. **1**^{1**} : 370. *f. 194 F.–L.* 1900.
Selby, Bull. Ohio Exp. Sta. 121 : 53. Sept. 1900.
Allescher, Rabh. Krypt.-Fl. **1**^{6} : 708. *d. f.* 1900.
Sturgis, Rept. Conn. Exp. Sta. **24** : 286. 1901.
Patterson, Bull. U.S. Agr. Pl. Industry 8 : 23. 3 Feb. 1902.
Ricker, Univ. of Maine Studies 3 : 25. 30 April 1902.

Asteroma Rosæ, Lib.
M. A. Curtis, Bot. N. Car. 118. 1867.
Cooke, Handbook 461. *d. f. 174*^{a}. 1871.
B. Grev. **2** : 97 (78). Jan. 1874.
Pk. Rept. N. Y. Mus. **28** : 58. 1876.
Cke. Grev. **6** : 135. June 1878.
Vize, Grev. **7** : 11. Sept. 1878.
Pk. Rept. N. Y. Mus. **29** : 78. 1878.
Hark. & Moore, Cat. Pac. Fung. 23. Feb. 1880.
*Ell. N. A. F. *536.* 1881.
*Rav. Fung. Am. *520.* 1881.
Pk. in Day's Cat. Bull. Buf. Soc. **4** : 202 (138). 1883.
Hark. Bull. Cal. Acad. **1** : 160. Feb. 1885.
Scribner, Rept. U. S. Agr. **1886** : 135. 1887.
Langlois, Cat. Pl. La. 27. 1887.
Ell. in Cat. Pl. N. J. 580. 1889.

Dothidea Rosæ, S.
S. Syn. Am. Bor. 235 no. 1941. *d.* 1834.
*Rav. Fung. Car. **1** : *68.* 1852.
Frost, Proc. Boston Soc. **12** : 80. 1869.
Hark. & Moore, Cat. Pac. Fung. 42. Feb. 1880.
Cke. Grev. **13** : 41. Dec. 1884.
Comes, Critt. Agr. **1** : 365. 1891.

Phyllachora Rosæ, Sacc.
Sacc. Syll. **2** : 611. *d.* 13 June 1883.
Tracy & Earle, Bull. Miss. Exp. Sta. 34 : 103. May 1895.

Actinothyrium, Kze.
Allescher, Rabh. Krypt.-Fl. **1**^{7} : 386. *d. f.* 1902.

Actinothyrium caulincolum, S.
S. Syn. Am. Bor. 249 no. 2178. *d.* 1834.
Sacc. Syll. **3** : 658. *d.* 15 Dec. 1884.

Actinothyrium Cubense, B. & C.
B. & C. Jour. Linn. Soc. **10** : 357. *d.* 1869. West Indies.
Sacc. Syll. **3** : 658. *d.* 15 Dec. 1884.

Actinothyrium graminis, Kze.
S. Syn. Am. Bor. 249 no. 2176. 1834.
Hark. & Moore, Cat. Pac. Fung. 22. Feb. 1880.
Langlois, Cat. Pl. La. 27. 1887.
Rostrup, Meddelelser om Groenl. **18** : 71 (29). 1894.

Actinothyrium Magnoliæ, S.
S. Syn. Am. Bor. 249 no. 2177. *d.* 1834.
Sacc. Syll. **3**: 658. *d.* 15 Dec. 1884.

ACurtis, Fr.
Fr. Summa 337. 1849.
Sacc. Cub. & Manc. Syll. **6**: 691. *d.* 1 Aug. 1888.
Sacc. Syll. **11**: 139. *d.* July 1895.

ACurtis gigantea, (S.) Fr.
Fr. Summa 337. 1849.
Sacc. Cub. & Manc. Syll. **6**: 691. *d.* 1 Aug. 1888.
Cke. Grev. **20**: 11. Sept. 1891.

NOTE. The genus *ACurtis*, Fr. was founded on *Clavaria gigantea*, S. which by later writers has been recognized as a monstrosity of some species of *Lentinus*. Writers are not agreed as to whether the species is *Lentinus tigrinus* (see B. Gard. Chron. II. **9**: 339. 16 March 1878) or *Lentinus lepideus* (see W. G. Smith, Jour. Bot. **41**: 322. Oct. 1903).

Aecidiella, Ell. & Kelsey.
See ***Pucciniosira,*** Lagerh.

Aecidiella Triumfettæ, Ell. & Kelsey.
See ***Pucciniosira pallidula,*** Lagerh.

Aecidium, P. Including ***Peridermium,*** (Lk.) Lev. and ***Rœstelia,*** Reb.

NOTE. Under the genus *Aecidium* are included all our æcidial forms whether their connection with definite teleutosporic forms is known or not. Where such connection is not yet known we have given all the references to the species known to us. Where such connection is known or is strongly suspected we have given under the æcidial name the references to the æcidial form itself with a cross-reference to the uredosporic and teleutosporic forms, where incidental references to the æcidia may also be found.

It should be remarked that the modern method of studying the Uredineæ by infection experiments has resulted in the recognition of many races or form-species, and the older characterization and nomenclature of æcidial forms can be regarded only as temporary.

Aecidium abietinum, A. & S.

NOTE. The species of Albertini and Schweinitz has been shown to include two forms: one connected with *Chrysomyxa Rhododendri*, the other with *Chrysomyxa Ledi*. (See DeBary, Bot. Zeit. **37**: 761 *et seq.* 1879, and, Schroeter, Beitr. Biol. Pflanzen **3**: 51. 1879.) The *Aecidium abietinum* A. & S. (*Peridermium abietinum*, Thm.) as used by American mycologists probably does not include the form connected with *Chrysomyxa Rhododendri*, as that species has not been reported in America. Some of the references relate to the æcidial form of *Chrysomyxa Ledi*, but uncertainty exists in other cases because under *Aecidium abietinum* some writers have included as var. *decolorans*, Thm. the *Peridermium decolorans* of Peck.

For references to forms probably connected with species of *Chrysomyxa* on *Ledum* see Farl. Appalachia **3**: 239, Jan. 1884, and Proc. Am. Acad. **20**: 320, 1885; also Schroeter, Beitr. Biol. Pflanzen l. c. and Ber. Schles. Ges. 1887: 279.

Aecidium (Peridermium) abietinum, (Fung. Columb. 1479).

NOTE. The locality and host make it probable that the specimens in this case belong to a species which is not identical with those elsewhere given under *Aecidium abietinum*.

Aecidium abietinum, Auct. Amer. p. p.
See ***Aecidium decolorans,*** (Pk.).

Aecidium abietinum, f. **Engelmanni,** Ell. & Ev.
See ***Aecidium Coloradense,*** Diet.

Aecidium abundans, Pk.
Pk. Bot. Gaz. **3**: 34. *d.* April 1878.
*Wint. Fung. Eur. *3016.* 1884.
Wint. & Demet. Hedw. **24**: 179 (3). Oct. 1885.
*Roum. Fung. Gall. *3866.* 1886.
Roum. Rev. Myc. **8**: 197. 1 Oct. 1886.
Hark. Bull. Cal. Acad. **2**: 440. 16 June 1887.
Kellerm. & Carl. Tr. Kans. Acad. **10**: 91. 1887.
*Ell. & Ev. N. A. F. *1814.* 1887.
De Toni in Sacc. Syll. **7**: 797. *d.* 28 Oct. 1888.
Kelsey, Jour. Myc. **5**: 80. June 1889.
Webber, Bull. Nebr. Exp. Sta. **1**: 329 (59). 18 Dec. 1889.
Gall. Bull. U. S. Agr. Veg. Pathol. 8: 55. 1889.
Williams, Am. Nat. **24**: 780. Aug. 1890.
Webber, Rept. Nebr. Agr. **1889**: 209 (69). 1890.
*Ell. & Ev. Fung. Columb. *873.* April 1896.
Ell. in Nelson, Bull. Wyo. Exp. Sta. 28: 202. May 1896.
Tubeuf-Smith, Diseases of Plants 411. 1897.
Hume, Proc. Davenport Acad. **7**: 251. 12 May 1899.
Barthol. Tr. Kans. Acad. **16**: 186. June 1899.
Nelson, Rept. Wyo. Exp. Sta. **10**: (34). 1900.
Tracy & Earle in Greene, Pl. Baker. **1**: 17. 22 Feb. 1901.
Earle in Greene, Pl. Baker. **2**: 2. 25 March 1901.
Patterson, Bull. U. S. Agr. Pl. Industry 8: 8. 3 Feb. 1902.
*Griffiths, West Am. Fung. *295.* 22 March 1902.
*Barthol., Ell. & Ev. Fung. Columb. *1701.* Feb. 1903.

Aecidium Aconiti-Napelli, (D C.) Wint.
*Ell. & Ev. N. A. F. *2212.* Feb. 1889.

Aecidium Actææ, Opiz.
Muhl. Cat. Pl. Am. Sept. 1 ed. 104. 1813. 2 ed. 107. 1818.
Arth. Bull. Iowa Agr. Coll. **1884**: 164. Jan. 1885.
Burrill, Bull. Ill. Lab. **2**: 223. *d.* 1885 and Rept. Ill. Ind. Univ. **12**: 140. *d.* 1885.
De Toni in Sacc. Syll. **7**: 777. *d.* 28 Oct. 1888.
Gall. Bull. U. S. Agr. Veg. Pathol. 8: 55. 1889.
Detmers, Bull. Ohio Exp. Sta. 44: 138. Sept. 1892.
Davis, Tr. Wis. Acad. **9**: 182. 21 Aug. 1893.
Small & Vail, Mem. Torr. Bot. Club **4**: 200. April 1894.
Pk. Rept. N. Y. Mus. **47**: 146 (20). Nov. 1894.
Kellerm. & Werner, Geol. Ohio **7**^{2}: 345. Jan. 1895.
Tubeuf-Smith, Diseases of Plants 409. 1897.
Diet. in Engler & Prantl, Pflanzen-fam. **1**^{1**}: 76. 1897.
Freeman, Minn. Bot. Studies II. 5: 555. 20 July 1901.
Kellerm. Jour. Myc. **9**: 12. 14 Feb. 1903.

NOTE. The form on *Actæa spicata* according to Ed. Fischer Bot. Centralbl. 83: 75, 17 July 1900, and Fortsetzung Entwick. Untersuch. ueber Rostpilze, Ber. Schweitz. Bot. Ges. 11: 4–9, 1901, belongs to *Puccinia Actæ-Agropyri*, Ed. Fisch. The authority for the æcidial name is given as Opiz by most authors, who evidently follow Wallroth (1833), and the date as given by Schroeter (quoting Steudel) is 1824. It should be noticed that the name *Aecidium Actææ* occurs in Muhlenberg's Catalogue, 1813, where no authority is given.

Aecidium Actææ, Detmers, p. p.
See ***Aecidium cimicifugatum,*** S

Aecidium Aegopodii, Reb.
See ***Cæoma Aegopodii,*** Wint.

Aecidium Aesculi, Ell. & Kellerm.
Ell. & Kellerm. Bull. Torr. Bot. Club **11**: 114. *d.* Oct. 1884.
Kellerm. Bull. Wash. Lab. **1**: 74. Jan. 1885 and Tr. Kans. Acad. **9**: 81. 1885.
*Ell. N. A. F. *1429.* 1885.
*Roum. Fung. Gall. *3865.* 1886.
Roum. Rev. Myc. **8**: 197. 1 Oct. 1886.
Kellerm. & Carl. Tr. Kans. Acad. **10**: 91. 1887.
De Toni in Sacc. Syll. **7**: 785. *d.* 28 Oct. 1888.
*Kellerm. & Swingle Kansas Fungi *1.* 1 May 1889.
Webber, Bull. Nebr. Exp. Sta. **1**: 329 (59). 18 Dec. 1889.
Webber, Rept. Nebr. Agr. **1889**: 209 (69). 1890.
Tubeuf-Smith, Diseases of Plants 410. 1897.
*Syd. Uredineen *1198.* Feb. 1898.
*Ell. & Ev. Fung. Columb. *1296.* May 1898.
Barthol. Tr. Kans. Acad. **16**: 186. June 1899.

Aecidium Aethusæ, Ell. & Ev. non Kirch.
See ***Aecidium Leptotæniæ,*** Lindr.

Aecidium Aikeni, Syd.
Syd. Ann. Myc. **1**: 334. *d.* July 1903.
Aecidium Thalictri-flavi, Syd. non Wint.
*Syd. Uredineen, *1397.* 1899.

Aecidium albescens, Grev.
*Ell. N. A. F. *223.* 1879.
Arth. Bull. Iowa Agr. Coll. **1884**: 164. Jan. 1885.
Arth. Bot. Gaz. **10**: 369. Sept. 1885.
Ell. & Ev. Jour. Myc. **1**: 141. *d.* Nov. 1885.

NOTE. The teleutosporic stage of this species is usually understood to be *Puccinia Adoxæ,* DC., but Bubák in Centralbl. Bact. 2 Abt. **10**: 574, 1901, considers it to belong to *Puccinia argentata,* (Schultz) Wint.

Aecidium albiperidium, Arth.
Arth. Jour. Myc. **8**: 53. *d.* 30 June 1902.

NOTE. The above name is given to an *Aecidium* produced by sowing on *Ribes Cynosbati* teleutospores obtained in the field on *Carex pubescens.* The teleutosporic stage is called *Puccinia albiperidia,* Arth. See also Davis, Tr. Wis. Acad. **14**: 86, Sept. 1903, where it is stated that this is probably the same as *Aecidium Grossulariæ,* P. See also Klebahn, Pringsh. Jahrb. **34**: 388 and **35**: 701. 1900.

Aecidium album, Clint.

NOTE. In Hedw. **36**: 297, 25 Oct. 1897, Dietel describes as new the teleutosporic stage of this species, using the name *Uromyces albus,* (Clint.) Diet. For synonymy of the æcidial stage see Diet. Hedw. **28**: 183, June 1889, and Anderson, Jour. Myc. **6**: 121, 6 Jan. 1891. See also *Aecidium porosum?* under *Uromyces Coloradensis,* Ell. & Ev. Erythea **1**: 204, Oct. 1893.

Pk. Bull. Buf. Soc. **1**: 68. *d.* July 1873.
Pk. Rept. N. Y. Mus. **26**: 78. *d.* April 1874.
Pk. Rept. N. Y. Mus. **29**: 76. 1878.
Ell. & Ev. Jour. Myc. **1**: 86. July 1885.
*Ell. N. A. F. *1431.* 1885.
De Toni in Sacc. Syll. **7**: 789. *d.* 28 Oct. 1888.
Diet. Hedw. **28**: 183. June 1889.
Anderson, Jour. Myc. **6**: 121. *d.* 6 Jan. 1891.
Tracy & Earle in Greene, Pl. Baker. **1**: 17. 22 Feb. 1901.

Kellerm. Ohio Nat. **2**: 161. *d.* Dec. 1901.
*Kellerm. Ohio Fungi *2. d.* Dec. 1901.
*Griffiths, West Am. Fung. *84, 84a.* 22 March 1902.

Aecidium porosum, Pk.

Pk. Bot. Gaz. **3**: 34. *d.* April 1878.
Arth. Bull. Iowa Agr. Coll. **1884**: 167. Jan. 1885.
Kellerm. Bull. Wash. Lab. **1**: 75. Jan. 1885 and Tr. Kans. Acad. **9**: 81. 1885.
*Ell. N. A. F. *1430.* 1885.
Arth. & Holw. Bull. Minn. Surv. 3: 31. 1 Oct. 1887.
Kellerm. & Carl. Tr. Kans. Acad. **10**: 91. 1887.
De Toni in Sacc. Syll. **7**: 787. *d.* 28 Oct. 1888.
Kelsey, Jour. Myc. **5**: 80. June 1889.
Webber, Bull. Nebr. Exp. Sta. **1**: 333 (63). 18 Dec. 1889.
Gall. Bull. U. S. Agr. Veg. Pathol. 8: 56. 1889.
Webber, Rept. Nebr. Agr. **1889**: 211 (71). 1890.
Lagerh. Bot. Notiser **1890**: 276. 1890.
Davis, Tr. Wis. Acad. **9**: 182. 21 Aug. 1893.
*Ell. & Ev. Fung. Columb. *874.* April 1896.
Barthol. Tr. Kans. Acad. **16**: 191. June 1889.
Nelson, Rept. Wyo. Exp. Sta. **10**: (36). 1900.
Kellerm. Ohio Nat. **2**: 136. *d.* Nov. 1901.
*Kellerm. Ohio Fungi *2. d.* Dec. 1901.

Aecidium Allenii, Clint.

Pk. Rept. N. Y. Mus. **24**: 93. *d.* 106. 1872.
Pk. Rept. N. Y. Mus. **29**: 77. 1878.
*Ell. & Ev. N. A. F. *1815.* 1887.
*Roum. Fung. Gall. *4412.* 1888.
Roum. Rev. Myc. **10**: 86. 1 April 1888.
De Toni in Sacc. Syll. **7**: 821. *d.* 28 Oct. 1888.
*Pazschke, Fung. Eur. *4039.* April 1895.
Pound, Clements and others, Bot. Surv. Nebr. 4: 36. 20 Jan. 1896.
Hume, Proc. Davenport Acad. **7**: 247, 251. 12 May 1899.
Nelson, Rept. Wyo. Exp. Sta. **10**: (34). 1900.
Earle in Greene, Pl. Baker. **2**: 2. 25 March 1901.
*Griffiths, West Am. Fung. *297.* 22 March 1902.
*Barthol., Ell. & Ev. Fung. Columb. *1702.* Feb. 1903.

Aecidium alliicolum, Wint.

*Wint. Fung. Eur. *3317. d.* 1885.
Wint. Hedw. **24**: 260. *d.* Dec. 1885 and Jour. Myc. **2**: 11. *d.* Jan. 1886.
De Toni in Sacc. Syll. **7**: 830. *d.* 28 Oct. 1888.
Gall. Bull. U. S. Agr. Veg. Pathol. 8: 55. 1889.
Barthol. Tr. Kans. Acad. **16**: 186. June 1899.

Aecidium Amorphæ, Cke.

See ***Uropyxis Amorphæ,*** Schrt.

Aecidium amphigenum, Ell. & Kellerm.

See ***Aecidium Kellermannii,*** De Toni.

Aecidium Anemones, P.

Muhl. Cat. Pl. Am. Sept. 1 ed. 104. 1813. 2 ed. 107. 1818.
Torrey, Cat. Pl. N. Y. 87. 1819.
*Ell. N. A. F. *225.* 1879.
Farl. Proc. Am. Acad. **18**: 74. July 1883.
*Ell. & Ev. N. A. F. *2403.* April 1890.

Aecidium leucospermum, D C.

Watt, Can. Nat. & Geol. II. **2**: 391. Oct. 1865.
B. Grev. **3**: 60 (102). Dec. 1874.

Diet. in Engler & Prantl, Pflanzen-fam. **1**^{1**} : 76. *f. 50 A, B.* 1897.

NOTE. *Puccinia fusca*, Relh. is considered by some botanists to be the teleutosporic stage of this species, but Magnus, Sitz.-Ber. naturforsch. Freunde **1890**: 29, 18 Feb. 1890, and **1890**: 145, 21 Oct. 1890, discredits this view and Tranzschel, Centralbl. Bact. 2 Abt. **11**: 106, 27 Oct. 1903, states that this *Aecidium* belongs to *Ochropsora Sorbi*, (Oud.) Diet.

Aecidium Anisacanthi, Pk.

Pk. Bull. Torr. Bot. Club **10**: 75. *d.* July 1883.
De Toni in Sacc. Syll. **7**: 819. *d.* 28 Oct. 1888.
*Seymour, Pringle's Mex. Fungi 7. 1 Sept. 1896. Mexico.

Aecidium Anisotomes, Reichardt.

Pound, Clements and others, Bot. Surv. Nebr. 4: 36. 20 Jan. 1896.
Barthol. Tr. Kans. Acad. **16**: 186. June 1899.
Lindr. Acta. Soc. Fauna et Fl. Fennica **22**^{1}: 178. 1902.

Aecidium Anograe, Arth.

Arth. Bull. Torr. Bot. Club **28**: 664. *d.* 30 Dec. 1901.

Aecidium apocynatum, S.

See ***Aecidium Apocyni***, S.

Aecidium Apocyni, S.

S. Syn. Car. 68 (42) no. 448. *d.* 1822.
Bon. Abh. Nat. Ges. Halle **5**: 208 (42). 1860.
M. A. Curtis, Bot. N. Car. 124. 1867.
Burrill, Bull. Ill. Lab. **2**: 236. 1885 and Rept. Ill. Ind. Univ. **12**: 147. 1885.
Kellerm. & Carl. Tr. Kans. Acad. **10**: 91. 1887.
De Toni in Sacc. Syll. **7**: 808. *d.* 28 Oct. 1888.
Webber, Bull. Nebr. Exp. Sta. **1**: 329 (59). 18 Dec. 1889.
Gall. Bull. U. S. Agr. Veg. Pathol. 8: 55. 1889.
Webber, Rept. Nebr. Agr. **1889**: 209 (69). 1896.
Williams, Bull. S. Dak. Exp. Sta. 29: 49. Dec. 1891.
Cheney, Tr. Wis. Acad. **10**: 69. Oct. 1895.
Tubeuf-Smith, Diseases of Plants 411. 1897.
*Ell. & Ev. Fung. Columb. *1295*. May 1898.
Barthol. Tr. Kans. Acad. **16**: 186. June 1899.
Patterson, Bull. U. S. Agr. Pl. Industry 8: 8. 3 Feb. 1902.

Cæoma apocynatum, Lk.

Lk., L. Sp. Pl. ed. Willd. **6**^{2}: 49. *d.* 1825.
S. Syn. Am. Bor. 292 no. 2865. 1834.

Uredo Asterum, Spreng. p. p.

Spreng. in L. Syst. Veg. 16 ed. **4**^{1}: 572. *d.* 1827.

Aecidium apocynatum, S.

S. Syn. Am. Bor. 309. 1834.
*Ell. & Ev. N. A. F. *1823*. 1887.

Aecidium Aquilegiæ, P.

Cockerell, Science Gossip **24**: 92. April 1888.
Underw. Proc. Ind. Acad. **1893**: 49. Aug. 1894.
Tubeuf-Smith, Diseases of Plants 409. 1897.
Hume, Proc. Davenport Acad. **7**: 251. 12 May 1899.
Nelson, Rept. Wyo. Exp. Sta. **10**: (34). 1900.
*Shear, Ell. & Ev. Fung. Columb. *1474*. May 1901.

NOTE. According to Plowright, Gard. Chron. III. **8**: 41, 12 July 1890, *Aecidium Aquilegiæ* on *Aquilegia vulgaris* and according to Jacky, Ber. Schweiz. Bot. Ges. Heft. 9: (18), 1899, that on *Aquilegia alpina* are the æcidia of *Puccinia Agrostidis*, Plowr.

Aecidium Ari, Auct. Amer.

See ***Aecidium Caladii***, S.

Aecidium aroidatum, S.
See ***Aecidium Caladii***, S.

Aecidium Asperifolii, P.
S. Syn. Car. 67 (41) no. 436. 1822.
Kellerm. & Carl. Tr. Kans. Acad. **10**: 91. 1887.
Cæoma urticatum, S. p. p.
S. Syn. Am. Bor. 294 no. 2898. 1834.

NOTE. The European plant of Persoon is referred to *Puccinia Rubigo-vera*, (D C.) Wint. The American *Aecidium* called by this name has been seldom found and little studied. See note under *Aecidium Impatientis*, S.

Aecidium asteratum, S. p. p.
See ***Aecidium Asterum***, S.

Aecidium asteratum, S. p. p.
See ***Aecidium Solidaginis***, S.

Aecidium asteratum, S. p. p.
See ***Aecidium Verbesinæ***, S.

Aecidium Asterum, S.

NOTE. In the present state of our knowledge it is impossible to arrange the numerous and confused references to the æcidia or *Aster*, *Solidago* and related genera with any degree of definiteness. Arthur, Jour. Myc. **8**: 54, 30 June 1902, refers *Aecidium Asterum*, S. to *Puccinia Caricis-Asteris*, Arth., but as American writers have used the name *Aecidium Asterum* to include forms on *Solidago* and other genera we have here arranged such references according to their host genera without attempting to indicate their real affinities.

S. Syn. Car. 67 (41) no. 444. *d.* 1822.
Bon. Abh. Nat. Ges. Halle **5**: 208 (42) *d.* 1860.
M. A. Curtis, Bot. N. Car. 124. 1867.
Edwards, Bull. Torr. Bot. Club **2**: 39. Oct. 1871.
Burrill, Bull. Ill. Lab. **2**: 230. *d.* 1885 and Rept. Ill.Ind. Univ. **12**: 144. *d.* 1885.
Gall. Bull. U. S. Agr. Veg. Pathol. 8: 55. 1889.
Webber, Bull. Nebr. Exp. Sta. **1**: 329 (59). 18 Dec. 1889.
Webber, Rept. Nebr. Agr. **1889**: 209 (69). 1890.
Detmers, Bull. Ohio Exp. Sta. 44: 138. Sept. 1892.
Underw. Proc. Ind. Acad. **1893**: 49. Aug. 1894.
Kellerm. & Werner, Geol. Ohio 7^2: 345. Jan. 1895.
Underw. & Earle, Bull. Ala. Exp. Sta. 80: 208. 28 June 1897.
Stevens, Rept. Ohio Acad. Sci. **5**: 66. 1897.
Claassen, Rept. Ohio Acad. **5**: 68. 1897.
Tubeuf-Smith, Diseases of Plants 411. 1897.
Snyder. Proc. Ind. Acad. **1896**: 217. 1897.
Orton, Rept. Vt. Exp. Sta. **11**: 210. Sept. 1898 and Contr. Bot. Vt. 2: 12. Sept. 1898.
*Ell. & Ev. Fung. Columb. *1391*. May 1899.
Barthol. Tr. Kans. Acad. **16**: 186. June 1899.
Nelson, Rept. Wyo. Exp. Sta. **10**: (35). 1900.
Freeman, Minn. Bot. Studies II. 5: 557. 20 July 1901.
Earle in Mohr, Contr. U. S. Nat. Herb. **6**: 192. 31 July 1901.
Ricker, Univ. of Maine Studies 3: 50. 30 April 1902.
*Griffiths, West Am. Fung. *370*. 21 May 1902.
Cæoma asteratum, Lk. p. p.
Lk., L. Sp. Pl. ed. Willd. 6^2: 51. *d.* 1825.
S. Syn. Am. Bor. 292 no. 2870. 1834.
Uredo Asterum, Spreng.
Spreng. in L. Syst. Veg. 16 ed. 4^1: 572. *d.* 1827.

Aecidium asteratum, S. p. p.
S. Syn. Am. Bor. 309. 1834.
Cke. Proc. Portland Soc. **1**: 181. *d.* 1869.
Pk. Rept. N. Y. Mus. **25**: 92. Sept. 1873.
Frost in Cat. Pl. Amherst 85. 1875.
Pk. Rept. N. Y. Mus. **29**: 77. 1878.
*Ell. N. A. F. *1019.* 1883.
Arth. Bull. Iowa Agr. Coll. **1884**: 164. Jan. 1885.
Kellerm. Bull. Wash. Lab. **1**: 74. Jan. 1885 and Tr. Kans. Acad. **9**: 81. 1885.
Cobb, List Pl. Amherst 40. 1887.
Kellerm. & Carl. Tr. Kans. Acad. **10**: 91. 1887.
Atk. Bull. Cornell Univ. 3: 21. 25 June 1897.
Aecidium Compositarum, Auct. Amer. p. p.
Trel. Tr. Wis. Acad. **6**: 137 (33). Nov. 1884.
Ell. & Ev. Jour. Myc. **1**: 86. July 1885.
Cockerell, Zoe **4**: 282. Oct. 1893.
Nelson, Rept. Wyo. Exp. Sta. **10**: (35). 1900.
Pound & Clements, Bot. Surv. Nebr. 5: 24. 30 March 1901.
Aecidium Compositarum, forma ***Asteris,*** Wint.
Wint. & Demet. Hedw. **24**: 179 (3). Oct. 1885.

Aecidium Asterum, Auct. Amer. p. p.
See ***Aecidium Solidaginis,*** S.

Aecidium Astragali, Thm.
Cockerell, Zoe **4**: 283. Oct. 1893.

NOTE. The host in the single reference to this species in America is said to be possibly *Astragalus alpinus.* In Northern Europe the *Aecidium* on that host, *Aecidium Astragali,* Eriks. non Thm. is connected with *Uromyces lapponicus,* Lagerh. See Lagerh. Bot. Notiser **1890**: 274 and Eriksson, ditto **1891**: 40.

Aecidium Atriplicis, Shear.
* Griffiths, West Am. Fung. *321.* 21 May 1902.
Shear, Bull. Torr. Bot. Club **29**: 453. *d.* 25 July 1902.

Aecidium (sub Rœstelia) **aurantiacum,** (Pk.)

NOTE. Here are included references to the æcidial form of *Gymnosporangium clavipes,* C. & P. See Farlow 1885, 1886 and Thaxter 1887, 1889 given below. See also *Gymnosporangium clavipes.* There is an *Aecidium aurantiacum* of Bonorden, 1860, and therefore *Aecidium aurantiacum* as given here is to be understood to be merely an index name.

Rœstelia aurantiaca, Pk.
Pk. Bull. Buf. Soc. **1**: 68 *d.* July 1873.
Pk. Rept. N. Y. Mus. **25**: 91. *d. pl. 1, f. 10–12.* Sept. 1873.
Cke. & B. Fungi 42. 1875.
Frost in Cat. Pl. Amherst 84. 1875.
Farl. Bull. Bussey Inst. **2**: 225. Jan. 1878.
Cke. Grev. **7**: 45. Dec. 1878.
Pk. Rept. N. Y. Mus. **29**: 76. 1878.
*Rav. Fung. Am. *271.* 1879.
Farl. Anniv. Mem. Boston Soc. 31. *d.* 1880.
*Ell. N. A. F. *1084.* 1883.
Farl. Proc. Am. Acad. **20**: 318. 1885.
Farl. Bot. Gaz. **11**: 190. July 1886.
Farl. Bot. Gaz. **11**: 236. Sept. 1886.
Thax. Proc. Am. Acad. **22**: 264. Jan. 1887 and Centralbl. Bact. **1**: 433, 458–460. 1887.

Seymour, Tr. Am. Hort. Soc. **4**: 155 (4), 160 (8). 7 April 1887.
Cobb, List Pl. Amherst 39. 1887.
*Ell. & Ev. N. A. F. *2224*. Feb. 1889.
Thax. Bot. Gaz. **14**: 165, 171. July 1889.
Ell. in Cat. Pl. N. J. 504. 1889.
Jennings, Bull. Tex. Exp. Sta. 9: 28. May 1890.
Mayr, Waldungen von Nordamer. 139. 1890.
Gall. Rept. U. S. Agr. **1889**: 416. 1890.
Pammel, Bull. Iowa Exp. Sta. 13: 43. May 1891.
Halsted, Rept. N. J. Exp. Sta. **1892**: 307. *f. 10.* 1893.
Bailey, Bull. Cornell Exp. Sta. 80: 626. *f. 10–12.* Dec. 1894.
Fischer, Hedw. **34**: 4. *f. 7.* 15 Feb. 1895.
Tracy & Earle, Bull. Miss. Exp. Sta. 34: 91. May 1895.
Sturgis, Rept. Conn. Exp. Sta. **18**: 137. 1895.
Underw. & Earle, Bull. Ala. Exp. Sta. 80: 218. 28 June 1897.
Jones, Oberlin College Lab. Bull. 9: 7. 15 June 1898.
Herbst, Fungal Fl. Lehigh Valley 174. *d.* 1899.
? Nelson, Rept. Wyo. Exp. Sta. **10**: (36). 1900.
Ricker, Univ. of Maine Studies 3: 53. 30 April 1902.
Rœstelia lacerata, B. in Grev. p. p.
B. Grev. **3**: 59 (101). Dec. 1874.
?Rœstelia cancellata, Auct. Amer. p. p. On ***Cydonia***.
Pk. Rept. N. Y. Mus. **33**: 38. Oct. 1883.

Aecidium auriellum, Pk.
Pk. Bull. Torr. Bot. Club **10**: 74. *d.* July 1883
De Toni in Sacc. Syll. **7**: 778. *d.* 28 Oct 1888.

Aecidium Bahiæ, B. & C.
Billings & Frost in Bot. 40th Parallel 414. 1871.
B. Grev. **3**: 60 (102) *d.* Dec. 1874.
De Toni in Sacc. Syll. **7**: 801. *d.* 28 Oct. 1888.

Aecidium balsameum, (Pk.) Diet.

NOTE. It has been conjectured that this species is connected with a species of *Calyptospora* common on *Vaccinia* in North America since *Aecidium columnare* A. & S. closely related morphologically was shown by Hartig, Allg. Forst & Jagdzeit. 1880 (see Bot. Zeit. **38**: 618) to belong to *Calyptospora Goeppertiana*, J. Kuehn. The teleutosporic stage of *Aecidium pseudo-columnare*, J. Kuehn, Hedw. **23**: 168, Nov. 1884, a species still more closely related to *Aecidium balsameum* is not known. See also notes under *Aecidium Peckii*, (Thm.) Diet.

Diet. in Engler & Prantl, Pflanzen-fam. **1**^{1**}: 78. 1897.
Peridermium balsameum, Pk.
Pk. Rept. N. Y. Mus. **27**: 104. *d. pl. 2, f. 24–26.* 1875.
Pk. Rept. N. Y. Mus. **29**: 77. 1878.
Thm. Mittheil. forstl. Versuchs. Oest. **2**: 319 (23). *d.* 1880.
*Ell. N. A. F. *1025*. 1883.
Farl. Appalachia **3**: 239, 241. Jan. 1884.
*Thm. Myc. Univ. *2228*. 1884.
Farl. Proc. Am. Acad. **20**: 322. 1885.
Arth. & Holw. Bull. Minn. Surv. 3: 31. 1 Oct. 1887.
De Toni in Sacc. Syll. **7**: 836. *d.* 28 Oct. 1888.
*Roum. Fung. Gall. *4836*. 1888.
Roum. Rev. Myc. **11**: 64. 1 April 1889.
Millsp. Bull. W. Va. Exp. Sta. 24: 509. June 1892.
Millsp. & Nutt. Publ. Field Columb. Mus. Bot. **1**: 130. Jan. 1896.
Tubeuf-Smith, Diseases of Plants 417. 1897.
Pk. Bull. N. Y. Mus. **6**: 227. July 1899. [Rept. N. Y. Mus. **52**:]

Freeman, Minn. Bot. Studies II. 5: 559. *d.* 20 July 1901.
*Barthol., Ell. & Ev. Fung. Columb. *1629.* Oct. 1902.

Aecidium Barbareæ, D C.
B. Grev. **3:** 60 (102). Dec. 1874.
Cke. Grev. **8:** 34. Sept. 1879.

NOTE. See Sydow, Mon. Ured. 1: 517. 15 May 1903. North American specimens of *Aecidium Barbareæ* probably belong to *Puccinia Barbareæ,* Cke.

Aecidium Berberidis, P.

NOTE. This form belongs to *Puccinia graminis.* The following references are all that it seems desirable to insert here, for although the *Aecidium* has frequently been mentioned, the references are mainly in popular writings or are of slight value to mycologists.

S. Syn. Car. 67 (41) no. 437. 1822.
Grev. Scot. Crypt. Fl. **2:** *pl.* 97. 1824.
Sprague, Proc. Boston Soc. **5:** 329. 1856.
M. A. Curtis, Bot. N. Car. 124. 1867.
Russell, Am. Nat. **2:** 565. *f. 1.* Jan. 1869.
Cooke, Handbook 538. *d. f. 220,* 1871.
Pk. Rept. N. Y. Mus. **24:** 91, 106. 1872.
Frost in Cat. Pl. Amherst 85. 1875.
Pk. Rept. N. Y. Mus. **29:** 76. 1878.
Hark. & Moore, Cat. Pac. Fung. 27. Feb. 1880.
Farl. Bull. Torr. Bot. Club **8:** 86. Aug. 1881.
Bundy, Geol. Wis. 1873–79, **1:** 400. 1883.
*Ell. N. A. F. *1010.* 1883.
Arth. Bull. Iowa Agr. Coll. **1884:** 164. Jan. 1885.
Cobb, List Pl. Amherst 40. 1887.
Bennett, Cat. Pl. R. I. 89. 1888.
Kelsey, Jour. Myc. **5:** 80. June 1889.
Bolley, Am. Mo. Micr. Jour. **10:** 173. *f. 6.* 178, 179. *pl., f. 3.* Aug. 1889 and Jour. Myc. **5:** 167. Sept. 1889.
Ell. in Cat. Pl. N. J. 505. 1889.
*Seymour & Earle, E. F. *85.* 1 Jan. 1891.
Cockerell, Zoe **4:** 283. Oct. 1893.
Underw. Proc. Ind. Acad. **1893:** 49. Aug. 1894.
Herbst, Fungal Fl. Lehigh Valley 174. *d.* 1899.
Jelliffe, Flora of Long Island 36. 1899.
Selby, Bull. Ohio Exp. Sta. 121: 17. Sept. 1900.
*Shear, Ell. & Ev. Fung. Columb. *1472.* May 1901.
Cæoma berberidatum, Lk.
S. Syn. Am. Bor. 293 no. 2881. 1834.

Aecidium Bermudianum, Farl.
Farl. Bot. Gaz. **12:** 206. *d.* Sept. 1887 and Rev. Myc. **10:** 33. *d.* 1 Jan. 1888.
De Toni in Sacc. Syll. **7:** 825. *d.* 28 Oct. 1888.

NOTE. *Gymnosporangium Bermudianum,* (Farl.) Earle is the teleutosporic stage of this fungus.

Aecidium biforme, Pk.
Pk. in Parry, Am. Nat. **9:** 351. *d.* June 1875.
De Toni in Sacc. Syll. **7:** 811. *d.* 28 Oct. 1888.
Anderson, Jour. Myc. **6:** 122. 6 Jan. 1891.
Sacc. Syll. **9:** 324. 15 Sept. 1891.
Jacz. Hedw. Beibl. **39:** (133). 10 Aug. 1900.

Aecidium Heliotropii, Tracy & Gall.
Tracy & Gall. Jour. Myc. **4**: 21. *d.* March 1888.
De Toni in Sacc. Syll. **7**: 811. *d.* 28 Oct. 1888.

Aecidium Bigeloviæ, Pk.
Pk. Bot. Gaz. **3**: 34. *d.* April 1878.
De Toni in Sacc. Syll. **7**: 801. *d.* 28 Oct. 1888.
*Barthol. Ell. & Ev. Fung. Columb. *1703.* Feb. 1903.

Aecidium Blasdaleanum, Diet. & Holw.
Diet. Erythea **3**: 77. *d.* 1 May 1895.
*Syd. Uredineen *1149.* 1897.
Lindau & Syd. Hedw. **37**: xvii. 9 April 1898. [Beiblatt no. 7.]
Sacc. & Syd. Syll. **14**: 376. *d.* 20 Aug. 1899.

Aecidium Boltoniæ, Arth.
Arth. Bull. Torr. Bot. Club **28**: 664. *d.* 30 Dec. 1901.

NOTE. On the same page with the above, the author suggests that *Puccinia Panicularia*, Arth. on *Glyceria grandis* may be the teleutosporic stage.

Aecidium Borrichiæ, Syd.
Syd. Hedw. Beibl. **40**: (129). *d.* 20 Oct. 1901.
Sacc. & Syd. Syll. **16**: 1122. 1 Feb. 1902.

Aecidium Botryapites, (S.) Bennett.

NOTE. This is the æcidium of *Gymnosporangium biseptatum*, Ell. See Farlow 1885, 1886 and Thaxter 1887, 1889 given below and Bull. Conn. Exp. Sta. **107**: 15 April 1891.

Bennett, Cat. Pl. R. I. 89. 1888.
Cæoma Botryapites, S.
S. Syn. Am. Bor. 294 no. 2902. 1834.
Rœstelia Ellisii, Pk.
Pk. Bull. Torr. Bot. Club **6**: 13. *d.* Feb. 1875.
*Thm. Myc. Univ. *431. d.* 1876.
Thm. Flora **60**: 170. *d.* 11 April 1877.
Pk. Rept. N. Y. Mus. **33**: 28. Oct. 1883.
*Roum. Fung. Gall. *4534.* 1888.
Roum. Rev. Myc. **10**: 143. 1 July 1888.
Rœstelia Botryapites, C. & E.
C. & E. Grev. **5**: 34. Sept. 1876.
Farl. Bull. Bussey Inst. **2**: 225. Jan. 1878.
Farl. Anniv. Mem. Boston Soc. 25. *d.* 1880.
Farl. Proc. Am. Acad. **18**: 75. July 1883.
*Ell. N. A. F. *1087.* 1883.
Farl. Proc. Am. Acad. **20**: 319. 1885 and Jour. Myc. **1**: 46. March 1885.
Farl. Bot. Gaz. **11**: 236. Sept. 1886.
Thax. Proc. Am. Acad. **22**: 263, 269. Jan. 1887 and Centralbl. Bact. **1**: 432, 433, 460. 1887.
Seymour, Tr. Am. Hort. Soc. **4**: 155 (4). 7 April 1887.
Thax. Bot. Gaz. **14**: 165, 171. July 1889.
Ell. in Cat. Pl. N. J. 504. 1889.
Fischer, Hedw. **34**: 4. *f. 10.* Jan. 1895.
*Ell. & Ev. Fung. Columb. *1075.* 22 Dec. 1896.
Seymour & Patterson in Deane's Flora of Reservations 138. 1896.
Jelliffe, Flora of Long Island 35. 1899.

Aecidium Bouvardiæ, Diet. & Holw.
Holw. Bot. Gaz. **24**: 36. *d.* 31 July 1897. Mexico.
Lindau & Syd. Hedw. **37**: xvii. 9 April 1898. [Beiblatt no. 7.]

Sacc. & Syd. Syll. **14**: 381. *d.* 20 Aug. 1899.

NOTE. Griffiths in Bull. Torr. Bot. Club. **29**: 298, 26 May 1902 suggests that this may be the æcidial stage of his new species *Puccinia Bouvardiæ*.

Aecidium Brandegei, Pk.

Pk. Bot. Gaz. **3**: 34. *d.* April 1878.
De Toni in Sacc. Syll. **7**: 808. *d.* 28 Oct. 1888.
Webber, Bull. Nebr. Exp. Sta. **1**: 329 (59). 18 Dec. 1889.
Webber, Rept. Nebr. Agr. **1889**: 209 (69). 1890.
Tubeuf-Smith, Diseases of Plants 411. 1897.
Barthol. Tr. Kans. Acad. **16**: 187. June 1899.

Aecidium Brodiææ, Ell. & Hark.

Ell. & Hark. Bull. Cal. Acad. **1**: 28 (8) *d.* Feb. 1884.

NOTE. Described as the æcidial stage of *Uromyces Brodiææ*, Ell. & Hark.

Aecidium Caladii, S.

NOTE. This is the æcidial stage of *Uromyces Caladii*, (S.) Farl. and *Aecidium importatum*, Henn. Verh. Bot. Ver. Brandenb. **73**: xxv. *d.* 1896, is probably not distinct.

S. Syn. Car. 69 (43) no. 457. *d.* 1822.
*Ell. N. A. F. *233*. 1879.
Arth. Bull. Iowa Agr. Coll. **1884**: 165. Jan. 1885.
Ell. & Ev. Jour. Myc. **1**: 86. July 1885.
Kellerm. & Carl. Tr. Kans. Acad. **10**: 91. 1887.
Ell. in Cat. Pl. N. J. 505. 1889.
*Pazschke, Fung. Eur. *3624*. 1890.
*Shear, N. Y. Fungi *129*. 1893.
*Ell. & Ev. Fung. Columb. *58*. 1893.
*Ell. & Ev. Fung. Columb. *659*. 24 April 1895.
Stevens, Rept. Ohio Acad. **5**: 66. 1897.
Barthol. Tr. Kans. Acad. **16**: 187. June 1899.
Jelliffe, Flora of Long Island 36. 1899.

Cæoma aroidatum, Lk.

Lk., L. Sp. Pl. ed. Willd. **6**[2]: 43. *d.* 1825.
S. Syn. Am. Bor. 292 no. 2860. 1834.

Uredo Caladii, Spreng. I.

Spreng. in L. Syst. Veg. 16 ed. **4**[1]: 574. *d.* 1827.

Cæoma dracontinatum, S.

S. Syn. Am. Bor. 292 no. 2861. *d.* 1834.

NOTE. The spelling *dracontionatum* in the index of Syn. Am. Bor. is usually adopted. See below.

Aecidium aroidatum, S.

S. Syn. Am. Bor. 309. 1834.
*Rav. Fung. Car. **4**: *95*. 1855.
Sprague, Proc. Boston Soc. **5**: 329. 1856.
Pk. Rept. N. Y. Mus. **23**: 59. 1872.
Pk. Rept. N. Y. Mus. **24**: 105. 1872.
Frost in Cat. Pl. Amherst 85. 1875.
Pk. Rept. N. Y. Mus. **29**: 77. 1878.
Cobb, List Pl. Amherst 40. 1887.
Bennett, Cat. Pl. R. I. 89. 1888.

Aecidium dracontionatum, S.

S. Syn. Am. Bor. 309. 1834.
Watt, Can. Nat. & Geol. II. **2**: 390. Oct. 1865.
B. Grev. **3**: 59 (101). Dec. 1874.
Pk. Rept. N. Y. Mus. **28**: 61. 1876.
Pk. Rept. N. Y. Mus. **29**: 77. 1878.

Wint. & Demet. Hedw. **24**: 180 (4). Oct. 1885.
Tracy & Earle, Bull. Miss. Exp. Sta. 34: 89. May 1895.
Aecidium Ari, Auct. Amer.
M. A. Curtis, Bot. N. Car. 123. 1867.
B. Grev. **3**: 59 (101). Dec. 1874.
*Rav. Fung. Am. *728*. 1882.
De Toni in Sacc. Syll. **7**: 831. *d*. 28 Oct. 1888.
Bennett, Cat. Pl. R. I. 89. 1888.
Aecidium Dracontii, M. A. Curtis.
M. A. Curtis, Bot. N. Car. 124. 1867.
Edwards, Bull. Torr. Bot. Club **2**: 39. Oct. 1871.
Cooke, Handbook 538. *d*. 1871.
De Toni in Sacc. Syll. **7**: 831 *d*. 28 Oct. 1888.
Long, Bull. Torr. Bot. Club **27**: 586. 14 Nov. 1900.
Pound & Clements, Bot. Surv. Nebr. 5: 24. 30 March 1901.

Aecidium Callirrhoes, Ell. & Kellerm.
Ell. & Kellerm. Jour. Myc. **2**: 4. *d*. Jan. 1886.
Kellerm. & Carl. Tr. Kans. Acad. **10**: 91. 1887.
De Toni in Sacc. Syll. **7**: 782. *d*. 28 Oct. 1888.
*Kellerm. & Swingle, Kansas Fungi *26*. 1 Aug. 1889.
Jennings, Bull. Tex. Exp. Sta. 9: 23. May 1890.
Webber, Tr. St. Louis Acad. **6**: 14. 12 March 1892 and Contr. Bot. Dept. Univ. Nebr. 3: 14. 14 June 1892.
*Syd. Uredineen *1245*. 1898.
*Ell. & Ev. Fung. Columb. *1393*. May 1899.
Barthol. Tr. Kans. Acad. **16**: 187. June 1899.

Aecidium Calthæ, Grev.

NOTE. In Europe, *Aecidium Calthæ*, Grev. grows in company with *Puccinia Calthæ*, Lk. and is supposed to be its æcidial stage.

Pk. Rept. N. Y. Mus. **25**: 91. Sept. 1873.
Pk. Rept. N. Y. Mus. **29**: 76. 1878.
Ell. in Cat. Pl. N. J. 505. 1889.
Herbst, Fungal Fl. Lehigh Valley 175. *d*. 1889.

Aecidium Calystegiæ, Desm.
*Ell. N. A. F. *1011*. 1883.
Hark. Bull. Cal. Acad. **2**: 441. 16 June 1887.
Arth. Science II. **10**: 564. 20 Oct. 1899.
Aecidium dubium, Clint.
Pk. Rept. N. Y. Mus. **27**: 104. *d*. 1875.
Pk. Rept. N. Y. Mus. **29**: 77. 1878.

NOTE. This *Aecidium* is the æcidial stage of *Puccinia Convolvuli*, Cast.

Aecidium cancellatum, (Jacq.) P. in Gmel.

NOTE. There is good reason for supposing that few if any of the following references to *Aecidium cancellatum* really relate to the European species of that name which is connected with *Gymnosporangium Sabinæ*, (Dicks.) Wint. This *Gymnosporangium* has been recorded in America on an imported species of juniper, although it is very rare, but, supposing that the determination of the species in that case is correct, there is no reason why the true *Aecidium cancellatum* might not be found also.

Muhl. Cat. Pl. Am. Sept. 1 ed. 104. 1813. 2 ed. 107. 1818.
S. Syn. Car. 66 (40) no. 431. 1822.
Rœstelia cancellata, Reb.
M. A. Curtis, Bot. N. Car. 123. 1867.
Cke. Proc. Portland Soc. **1**: 180. *d*. 1869.

Cooke, Handbook 533. *d.* 1871.
Cke. Grev. **5**: 151. June 1877.
Farl. Bull. Bussey Inst. **2**: 225. Jan. 1878.
Vize, Grev. **7**: 12. Sept. 1878.
Hark. & Moore, Cat. Pac. Fung. 27. Feb. 1880.
Farl. Anniv. Mem. Boston Soc. 27. *d.* 1880.
* ***Cæoma Rœstelites***, S. Am. Bor.
S. Syn. Am. Bor. 294 no. 2900. 1834.

Aecidium candidum, P.

See ***Cystopus candidus***, Lev.

Aecidium carneum, (Bosc.) n. n.

NOTE. We have placed under *Aecidium carneum* references to the foliicolous forms of *Aecidium* on *Pinus palustris* and doubtfully on some other species of *Pinus* of the southern states, for, although the original specimens of Bosc are not to be found in that part of his herbarium, now at Padua, his original figure and description make it probable that his *Tuberculatia carnea* included what has generally been called by American mycologists, *Aecidium orientale*, Cke. which is an Indian species. It should be added, that although according to Cooke, Bull. Soc. Bot. Fr. **24**: 315, Oct. 1877, *Aecidium orientale* is a foliicolous species, the name has been extended by collectors to include in some cases corticolous forms. Inasmuch as the corticolous and foliicolous forms of *Aecidium Pini* have been shown by experiment to belong to several distinct species it is not improbable that the same may prove to be true in the present case. But in the absence of cultures to show the development of the *Aecidia* of this group, the arrangement here given must be regarded as one of convenience only. See also note under *Aecidium Pini*, (Willd.) P.

Tuberculatia carnea, Bosc.
Bosc, Ges. Nat. Freunde Mag. **5**: 88 (6). *d. pl. 6, f. 13.* 1811.
S. Syn. Car. 56 (30) no. 295. *d.* 1822.
Lk., L. Sp. Pl. ed. Willd. **6**^{2}: 100. 1825.
Spreng. in L. Syst. Veg. 16 ed. **4**^{1}: 564. *d.* 1827.
Farlow & Seymour, H. I. 161. June 1891.
Aecidium Pini, Rav. Fung. Car.
*Rav. Fung. Car. **1**: *93.* 1852.
Peridermium Pini, Auct. Amer. p. p.?
? M. A. Curtis, Bot. N. Car. 124. 1867. p. p.
Peridermium oblongisporium, var. ***Ravenelii***, Thm.
Thm. Mittheil. forstl. Versuchs. Oest. **2**: 316 (20). *d.* 1880.
*Rav. Fung. Am. *270.* 1879 (sec. Thm.).
Peridermium orientale, Cke. (p. p.?).
Cke. Grev. **7**: 45. Dec. 1878.
*Rav. Fung. Am. *270.* 1879.
Farl. Proc. Am. Acad. **18**: 75. July 1883.
*Ell. N. A. F. *1026 b.* 1883.
Wint. & Demet. Hedw. **24**: 182 (6). Oct. 1885.
*Wint. Fung. Eur. *3315.* 1885.
Gall. Bull. U. S. Agr. Veg. Pathol. 8: 57. 1889.
Tracy & Earle, Bull. Miss. Exp. Sta. 34: 91. May 1895.
Tracy & Earle, Bull. Miss. Exp. Sta. 38: 138. May 1896.
Underw. & Earle, Bull. Torr. Bot. Club **23**: 401. *d.* 25 Oct. 1896.
Atk. Bull. Cornell. Univ. 3: *22.* 25 June 1897.
Underw. & Earle, Bull. Ala. Exp. Sta. 80: 213. 28 June 1897.
Tubeuf-Smith, Diseases of Plants 415. 1897.
Earle in Mohr, Contr. U. S. Nat. Herb. **6**: 192. 31 July 1901.
Massee, Textbk. Pl. Diseases 267. 1899.

Peridermium Ravenelii, Klebahn.
Klebahn, Ber. Deutsch. Bot. Ges. **8:** (69). 29 Dec. 1890.
Tubeuf-Smith, Diseases of Plants 416. 1897.
Diet. in Engler & Prantl, Pflanzen-fam. **1**1**: 42. 1897.
Peridermium Pini, var. ***acicolum,*** E. F. 224.
*Seymour & Earle, E. F. *224.* 1 Feb. 1893.
Aecidium Ravenelii, Diet.
Diet. in Engler & Prantl, Pflanzen-fam. **1**1**: 78. 1897.
?Aecidium orientale, Diet.
Diet. in Engler & Prantl, Pflanzen-fam. **1**1**: 78. 1897.
Peridermium carneum, Seymour & Earle.
*Seymour & Earle, E. F. *550.* 7 June 1899.

Aecidium Cassiæ, Ell. & Kellerm.
Kellerm. & Carl. Tr. Kans. Acad. **10:** 91. 1887.
*Ell. & Ev. N. A. F. *1825.* 1887.
Webber, Bull. Nebr. Exp. Sta. **1:** 330 (60). 18 Dec. 1889.
Webber, Rept. Nebr. Agr. **1889:** 210 (70). 1890.
Cke. Grev. **20:** 110. June 1892.
Sacc. Syll. **11:** 215. July 1895.
Barthol. Tr. Kans. Acad. **16:** 187. June 1899.

Aecidium Ceanothi, Ell. & Kellerm.
Ell. & Kellerm. Bull. Torr. Bot. Club **11:** 114. *d.* Oct. 1884.
Kellerm. Bull. Wash. Lab. **1:** 74. Jan. 1885 and Tr. Kans. Acad. **9:** 81. 1885.
*Ell. N. A. F. *1428.* 1885.
Kellerm. & Carl. Tr. Kans. Acad. **10:** 91. 1887.
Webber, Bull. Nebr. Exp. Sta. **1:** 330 (60). 18 Dec. 1889.
Webber, Rept. Nebr. Agr. **1889:** 210 (70). 1890.
Tubeuf-Smith, Diseases of Plants 411. 1897.
*Ell. & Ev. Fung. Columb. *1387.* May 1899.
Barthol. Tr. Kans. Acad. **16:** 187. June 1899.

Aecidium Cephalanthi, Seymour.

NOTE. Suspected to belong to *Puccinia Seymouriana,* Arth. See last reference.

Seymour, Bot. Gaz. **9:** 191. *d.* Dec. 1884.
Burrill, Bull. Ill. Lab. **2:** 228. *d.* 1885 and Rept. Ill. Ind. Univ. **12:** 143. *d.* 1885.
*Roum. Fung. Gall. *3864.* 1886.
Roum. Rev. Myc. **8:** 197. 1 Oct. 1886.
*Wint. Fung. Eur. *3518.* 1886.
Kellerm. & Carl, Tr. Kans. Acad. **10:** 91. 1887.
*Ell. & Ev. N. A. F. *1817.* 1887.
De Toni in Sacc. Syll. **7:** 797. *d.* 28 Oct. 1888.
Gall. Bull. U. S. Agr. Veg. Pathol. 8: 55. 1889.
*Syd. Uredineen *496.* May 1891.
*Carleton, Ured. Amer. *20.* 1894.
Tubeuf-Smith, Diseases of Plants 411. 1897.
Barthol. Tr. Kans. Acad. **16:** 187. June 1899.
Arth. Bot. Gaz. **34:** 12. 16 July 1902.

Aecidium Cerastii, Wint.
Wint. Jour. Myc. **1:** 126. *d.* Oct. 1885.
Wint. & Demet. Hedw. **24:** 179 (3). *d.* Oct. 1885.
De Toni in Sacc. Syll. **7:** 780. *d.* 28 Oct. 1888.
Gall. Bull. U. S. Agr. Veg. Pathol. 8: 55. 1889.
Tubeuf-Smith, Diseases of Plants 410. 1897.
Henn. Hedw. **37:** 272. 25 Oct. 1898.

Aecidium cerebrum, (Pk.) Diet.

NOTE. This species is said by Cooke, Bull. Soc. Bot. Fr. **24**: 315, 22 Oct. 1877, to be the same as *Aecidium corticolum*, (Lk.) but is generally considered distinct. The teleutosporic stage is not known. See also *Aecidium piriforme*, (Pk.) and *Aecidium Pini*, (Willd.) P.

Diet. in Engler & Prantl, Pflanzen-fam. **1**^{1**}: 79. 1897.
?Cæoma pineum, S. Am. Bor. non Lk.
S. Syn. Am. Bor. 294 no. 2903. 1834 (Excl. Syn.).
Peridermium cerebrum, Pk.
Pk. Bull. Buf. Soc. **1**: 68. *d.* July 1873.
Pk. Rept. N. Y. Mus. **25**: 91. *d.* Sept. 1873.
Frost in Cat. Pl. Amherst 84. 1875.
Farl. Bull. Bussey Inst. **2**: 239. Jan. 1878.
Pk. Rept. N. Y. Mus. **29**: 77. 1878.
Thm. Mittheil. forstl. Versuchs. Oest. **2**: 312 (16). *d.* 1880.
*Ell. N. A. F. *1022*. 1883.
Cobb, List Pl. Amherst 39. 1887.
De Toni in Sacc. Syll. **7**: 837. *d.* 28 Oct. 1888.
Ell. in Cat. Pl. N. J. 505. 1889.
Klebahn, Ber. Deutsch. Bot. Ges. **8**: (69). 29 Dec. 1890.
Tracy & Earle, Bull. Miss. Exp. Sta. 38: 138. May 1896.
Underw. & Earle, Bot. Gaz. **22**: 232. 23 Sept. 1896.
Underw. & Earle, Bull. Torr. Bot. Club **23**: 403. *d.* 25 Oct. 1896.
Atk. Bull. Cornell Univ. 3: 22. 25 June 1897.
Underw. & Earle, Bull. Ala. Exp. Sta. 80: 213. 28 June 1897.
Tubeuf-Smith, Diseases of Plants 414. 1897.
Hume, Proc. Davenport Acad. **7**: 247, 253. 12 May 1899.
Massee, Textbk. Pl. Diseases 267. 1899.
Pound & Clements, Bot. Surv. Nebr. 5: 24. 30 March 1901.
Earle in Mohr, Contr. U. S. Nat. Herb. **6**: 192. 31 July 1901.
Schrenk, Yearb. U. S. Agr. **1900**: 200. 1901.
Peridermium corticolum, Cke.
Cke. Bull. Soc. Bot. Fr. **24**: 315. *d.* 22 Oct. 1877.
Cke. Grev. **7**: 45. Dec. 1878.
*Rav. Fung. Am. *269*. 1879.
Peridermium Pini, var. ***corticolum***, Ell. in N. A. F.
*Ell. N. A. F. *1021*. 1883.

Aecidium Cestri, Mont.
Carl. in Hitchcock, Rept. Mo. Bot. Gard. **9**: 117. 20 April 1898. West Indies.
Henn. Hedw. **37**: 279. 31 Dec. 1898.

Aecidium Chelonis, Gerard.
Gerard, Bull. Torr. Bot. Club **5**: 40. d. Sept. 1874 and Hedw. **13**: 173. *d.* Nov. 1874.
Pk. Rept. N. Y. Mus. **29**: 77. 1878.
*Wint. Fung. Eur. *3018*. 1884.
*Ell. N. A. F. *1433*. 1885.
Cke. Grev. **20**: 110. June 1892.
Sacc. Syll. **11**: 219. July 1895.
*Shear, N. Y. Fungi *322*. March 1896.

Aecidium Chenopodii-fruticosi, D C.
D C. Fl. Fr. **6**: 92. *d.* 1815.*
Smith & Pound, Bot. Surv. Nebr. 2: 28. 15 April 1893.
*Ell. & Ev. Fung. Columb. *1294*. 1899. (Emended label.)
*Barthol., Ell. & Ev. Fung. Columb. *1501*. Dec. 1901.

Aecidium Salicorniæ, F. Columb.
*Ell. & Ev. Fung. Columb. *1294*. May 1898.

Aecidium Chrysopsidis, Ell. & Anderson.
Kelsey, Jour. Myc. **5**: 80. Jan. 1889.
Ell. & Anderson, Bot. Gaz. **16**: 48. *d*. Feb. 1891.
Sacc. Syll. **9**: 324. *d*. 15 Sept. 1891.

Aecidium Cimicifugæ, M. A. Curtis.
See ***Aecidium cimicifugatum***, S.

Aecidium cimicifugatum, S.
S. Syn. Am. Bor. 309. 1834.
Lea, Cat. Pl. Cin. 71. 1849.
James, Jour. Cin. Soc. **2**: 67 (26). April 1879.
*Rav. Fung. Car. **1**: *94*. 1852.
Watt, Can. Nat. & Geol. II. **2**: 390. Oct. 1865.
B. Grev. **3**: 60 (102). Dec. 1874.
*Ell. N. A. F. *227*. 1879.
Pk. Rept. N. Y. Mus. **33**: 28. Oct. 1883.
*Wint. Fung. Eur. *3420*. 1886.
De Toni in Sacc. Syll. **7**: 777. *d*. 28 Oct. 1888.
Gall. Bull. U. S. Agr. Veg. Pathol. 8: 55. 1889.
Detmers, Bull. Ohio Exp. Sta. 44: 140. Sept. 1892.
Detmers, Bull. Ohio Exp. Sta. tech. ser. 1: 174. April 1893.
Kellerm. & Werner, Geol. Ohio 7^2: 345. Jan. 1895.
Lagerh. Tromsoe Mus. Aarshefter **17**: 100. *d*. 1895.
*Syd. Uredineen *1343*. 1899.
Kellerm. Jour. Myc. **8**: 57. *d*. 30 June 1902.
*Kellerm. Ohio Fungi *61*. *d*. July 1902.
?Freeman, Minn. Bot. Studies II. 5: 555. *d*. 20 July 1901.
Cæoma cimicifugatum, S.
S. Syn. Am. Bor. 203 no. 2876. *d*. 1834.
Aecidium Cimicifugæ, M. A. Curtis.
M. A. Curtis, Bot. N. Car. 123. 1867.
Aecidium Actææ, Detmers, p. p.
Detmers, Bull. Ohio Exp. Sta. 44: 138. Sept. 1892.

Aecidium Cissi, Wint.
Carl. in Hitchcock, Rept. Mo. Bot. Gard. **9**: 117. 20 April 1898. West Indies.
Henn. Hedw. **37**: 279. 31 Dec. 1898.

Aecidium Clarkiæ, Diet. & Holw.
Diet. Erythea **2**: 129. *d*. 1 Aug. 1894.

NOTE. This accompanies *Puccinia Clarkiæ*, Pk. to which it probably belongs.

Aecidium claytoniatum, S.

NOTE. The teleutosporic stage of this fungus was afterwards described under the name *Puccinia Mariæ-Wilsoni*, Clint. See *Puccinia claytoniata*, (S.) Pk.

S. Syn. Am. Bor. 309. 1834.
Watt, Can. Nat. & Geol. II. **2**: 390. Oct. 1865.
Pk. Rept. N. Y. Mus. **23**: 59. 1872.
Pk. Rept. N. Y. Mus. **24**: 106. 1872.
B. Grev. **3**: 61 (103). Dec. 1874.
Pk. Rept. N. Y. Mus. **29**: 76. 1878.
*Ell. N. A. F. *1017*. 1883.
*Shear, N. Y. Fungi *131*. 1893.
Kellerm. & Werner, Geol. Ohio 7^2: 345. Jan. 1895.

*Ell. & Ev. Fung. Columb. *875*. April 1896.
*Seymour & Earle, E. F. Suppl. *B 27*. 5 April 1898.
Syd. Mon. Ured. **1**: 561. 15 May 1903.
Aecidium Claytoniæ, Torr.
Torrey, Cat. Pl. N. Y. 87. 1819.
Cæoma claytoniatum, S.
S. Syn. Am. Bor. 294 no. 2892. *d*. 1834.
Burrill, Bull. Ill. Lab. **2**: 175. d. 1885.

Aecidium Clematidis, D C.

NOTE. This is held to be the æcidial stage of *Puccinia Clematidis*, (D C.) Lagerh. (*Puccinia Agropyri*, Ell. & Ev.). See Diet. Oest. Bot. Zeit. **42**: 261 (1), Aug. 1892 and Lagerh. Tromsoe Mus. Aarshefter **17**: 54. 1895.

B. Grev. **3**: 60 (102). Dec. 1874.
*Thm. Myc. Univ. *1221*. 1879.
*Ell. N. A. F. *1005*. 1883.
Farl. Appalachia **3**: 239. Jan. 1884.
Arth. Bull. Iowa Agr. Coll. **1884**: 165. Jan. 1885.
*Wint. Fung. Eur. *3421*. 1886.
Halsted, Bull. Iowa Agr. Coll. **1886**: 58. 1887.
De Toni in Sacc. Syll. **7**: 774. *d*. 28 Oct. 1888.
Kelsey, Jour. Myc. **5**: 80. June 1889.
Webber, Bull. Nebr. Exp. Sta. **1**: 330 (60). 18 Dec. 1889.
Gall. Bull. U. S. Agr. Veg. Pathol. 8: 55. 1889.
Williams, Am. Nat. **24**: 780. Aug. 1890.
Webber, Rept. Nebr. Agr. **1889**: 210 (70). 1890.
Woods, Bot. Surv. Nebr. 2: 38. 15 April 1893.
Davis, Tr. Wis. Acad. **9**: 182. 21 Aug. 1893.
Carl. Tr. Kans. Acad. **13**: 51. 1893.
*Ell. & Ev. Fung. Columb. *61a, 61b*. 1893.
*Shear, N. Y. Fungi *80*. 1893.
*Pazschke, Fung. Eur. *3934*. Feb. 1894.
Small & Vail, Mem. Torr. Bot. Club **4**: 200. April 1894.
Pound, Bot. Surv. Nebr. 3: 9. 18 June 1894.
*Syd. Uredineen *899*. Aug. 1894.
McClatchie in Reid's Hist. Pasadena 615. 1895.
McClatchie, Proc. S. Cal. Acad. **1**: 372. 5 June 1897.
Claassen, Rept. Ohio Acad. **5**: 68. 1897.
Tubeuf-Smith, Diseases of Plants 409. 1897.
Orton, Rept. Vt. Exp. Sta. **11**: 210. Sept. 1898 and Contr. Bot. Vt. 2: 12. Sept. 1898.
Hume, Proc. Davenport Acad. **7**: 251. 12 May 1899.
Barthol. Tr. Kans. Acad. **16**: 187. June 1899.
Nelson, Rept. Wyo. Exp. Sta. **10**: (35). 1900.
Tracy & Earle in Greene, Pl. Baker **1**: 17. 22 Feb. 1901.
Earle in Greene, Pl. Baker **2**: 2. 25 March 1901.
Freeman, Minn. Bot. Studies II. 5: 555. 20 July 1901.
*Griffiths, West Am. Fung. *292*. 22 March 1902.
Ricker, Univ. of Maine Studies 3: 50. 30 April 1902.
Aecidium Clematitis, S.
S. Syn. Car. 68 (42) no. 447. *d*. 1822.
Lk., L. Sp. Pl. ed Willd. **6**^{2}: 54. *d*. 1825.
Spreng. in L. Syst. Veg. 16 ed. **4**^{1}: 571. *d*. 1827.
M. A. Curtis, Bot. N. Car. 124. 1867.
Pk. Rept. N. Y. Mus. **23**: 61. 1872.
Pk. Rept. N. Y. Mus. **24**: 106. 1872.
Pk. Rept. N. Y. Mus. **26**: 91. April 1874.

Frost in Cat: Pl. Amherst 85. 1875.
Cobb, List Pl. Amherst 40. 1887.
Cæoma clematitatum, S.
S. Syn. Am. Bor. 293 no. 2874. 1834.
Aecidium clematitatum, S.
S. Syn. Am. Bor. 309. 1834.
Pk. Rept. N. Y. Mus. **29**: 76. 1878.
Aecidium Ranunculacearum, var. ***Clematidis***, Cke.
Cooke, Handbook 539. *d.* 1871.

Aecidium Cleomis, Ell. & Anderson.
Anderson, Jour. Myc. **5**: 82. June 1889.
Ell. & Anderson, Bot. Gaz. **16**: 48. *d.* Feb. 1891.
Sacc. Syll. **9**: 325. *d.* 15 Sept. 1891.

Aecidium Clibadii, Syd.
Syd. Ann. Myc. **1**: 333. *d.* July 1903. Cent. Amer.

Aecidium Collinsiæ, Ell. & Ev.
Ell. & Ev. Bull. Wash. Lab. **1**: 4. *d.* Sept. 1884.
De Toni in Sacc. Syll. **7**: 813. *d.* 28 Oct. 1888.
Henn. Hedw. **37**: 272. 25 Oct. 1898.

NOTE. Hennings describes an æcidium as part of his plant and Syd. Mon. Ured. 1: 246, 15 Nov. 1902, assumes the present *Aecidium* to be the same.

Aecidium Coloradense, Diet.
Diet. in Engler & Prantl, Pflanzen-fam. **1** 1**: 78. *d.* 1897.
Sacc. & Syd. Syll. **14**: 388. *d.* 20 Aug. 1899.
Peridermium abietinum, f. ***Engelmanni***, Ell. & Ev.
*Ell. & Ev. N. A. F. *2223*. Feb. 1889.
Aecidium abietinum, f. ***Engelmanni***, Ell. & Ev.
*Ell. & Ev. Fung. Columb. *876*. April 1896.

Aecidium Columbiense, Ell. & Ev.
Ell. & Ev. Erythea **1**: 206. *d.* 20 Oct. 1893.
Sacc. Syll. **11**: 217. *d.* July 1895.

Aecidium Compositarum, Auct. Amer. p. p.

NOTE. Very little is known in regard to the development of the *Aecidia* on *Compositæ* in America, but some belong to autœcious and others to heterœcious species. The number of references is so great and in some instances they are so uncertain that for practical use by mycologists it has seemed best under *Aecidium Compositarum* to group the *Aecidia* on all the genera of *Compositæ*.

Where in the original references no particular host-genus is mentioned, the references are grouped chronologically with the heading of Miscellanea. Where definite genera are mentioned, the hosts are arranged alphabetically, each with its references; *e. g.*, all references to *Aecidia* on *Ambrosia* are placed under *Aecidium Compositarum*, var. *Ambrosiæ*.

For information in regard to European *Aecidia* on *Compositæ* see Jacky, Die Compositen-bewohnenden Puccineen von Typus der *Puccinia Hieracii* und deren Specialiserung, Inaugural Diss. Bern 1889 and Zeit. Pflanzenkr. **9**: 193, 20 Oct. 1899; Klebahn, Bot. Zeit. **58**: 133, 1 May 1900, and Magnus, Hedw. Beibl. **39**: (147), Oct. 1900. Also see Magnus, Ber. Deutsch Bot. Ges. **11**: 453, 29 Aug. 1893, and Lindroth, Ueber einige Compositenbewohnende Puccinien, Acta Soc. Fauna et Fl. Fennica **20**[9]: 1901.

Miscellanea.

Lea, Cat. Pl. Cin. 71. 1849.
James, Jour. Cin. Soc. **2**: 67 (26). April 1879.
Sprague, Proc. Boston Soc. **5**: 329. 1856.
*Rav. Fung. Car. **5**: 97. 1860.
Watt, Can. Nat. & Geol. II. **2**: 390. Oct. 1865.
M. A. Curtis, Bot. N. Car. 123. 1867.
Pk. Rept. N. Y. Mus. **22**: 93. 1869.
Cooke, Handbook 542. *d.* 1871.
Pk. Rept. N. Y. Mus. **24**: 107. 1872.
Frost in Cat. Pl. Amherst 85. 1875.
Pk. Rept. N. Y. Mus. **29**: 77. 1878.
Bundy, Geol. Wis. 1873–79 **1**: 400. 1883.
Brendel, Fl. Peoriana 2 ed. 69. 1887.
Cobb, List Pl. Amherst 40. 1887.
Halsted, Bull. Iowa Agr. Coll. **1886**: 58. 1887.
Langlois, Cat. Pl. La. 27. 1887.
Bennett, Cat. Pl. R. I. 89. 1888.
Ell. in Cat. Pl. N. J. 505. 1889.
Tracy & Earle, Bull. Miss. Exp. Sta. 34: 89. May 1895.

Aecidium Compositarum, var. **Ambrosiæ,** Burrill.
Burrill, Bull. Ill. Lab. **2**: 231. *d.* 1885 and Rept. Ill. Ind. Univ. **12**: 144. *d.* 1885.
De Toni in Sacc. Syll. **7**: 798. *d.* 28 Oct. 1888.
Cockerell, Zoe **4**: 283. Oct. 1893.
?Aecidium Compositarum, Auct. Amer. p. p.
Claassen, Rept. Ohio Acad. **5**: 68. 1897.

Aecidium Compositarum, var. **Artemisiæ,** C. & E.
C. & E. Grev. **6**: 86. March 1878.
Aecidium Tanaceti, Cockerell.
Cockerell, Jour. Myc. **5**: 85. June 1889.
Aecidium Compositarum, var. ***Artemisiarum,*** Ell. & Ev.
*Ell. & Ev. N. A. F. *2219.* 1889.
Aecidium Compositarum. Auct. Amer. p. p.
Patterson, Bull. U. S. Agr. Pl. Industry 8: 8. 3 Feb. 1902.

Aecidium Compositarum, var. **Asteris,** Wint.
See ***Aecidium Asterum,*** S.

Aecidium on **Baccharis.**
See ***Aecidium fragile,*** Diet. & Holw.

Aecidium on **Bahia.**
See ***Aecidium Bahiæ,*** B. & C.

Aecidium Compositarum, var. **Bidentis,** Burrill.
Burrill, Bull. Ill. Lab. **2**: 232. *d.* 1885 and Rept. Ill. Ind. Univ. **12**: 145. *d.* 1885.
De Toni in Sacc. Syll. **7**: 799. *d.* 28 Oct. 1888.
?Aecidium Compositarum, Auct. Amer. p. p.
Davis, Tr. Wis. Acad. **9**: 161. 21 Aug. 1893.
Davis, Tr. Wis. Acad. **14**: 88. Sept. 1903.

Aecidium on **Bigelovia.**
See ***Aecidium Bigeloviæ,*** Pk.

Aecidium on **Boltonia.**
See ***Aecidium Boltoniæ,*** Arth.

Aecidium on **Borrichia.**
See ***Aecidium Borrichiæ,*** Syd.

Aecidium on **Brickellia.**
See ***Aecidium Guadalajaræ***, Syd.

Aecidium Compositarum, Auct. Amer. p. p. On **Cacalia.**
*Ell. & Ev. N. A. F. *1811*. 1887.
Kellerm. & Carl. Tr. Kans. Acad. **10**: 91. 1887.
Davis, Tr. Wis. Acad. **11**: 167. Aug. 1897.
Barthol. Tr. Kans. Acad. **16**: 187. June 1899.
?Aecidium, sp. indet.
Davis, Bot. Gaz. **19**: 415. 17 Oct. 1894.

Aecidium on **Chrysopsis.**
See ***Aecidium Chrysopsidis***, Ell. & Anderson.

Aecidium on **Clibadium.**
See ***Aecidium Clibadii***, Syd.

Aecidium on **Crepis.**
See ***Aecidium crepidicolum***, Ell. & Ev.

Aecidium Compositarum, var. **Erigerontis**, Wint.
See ***Aecidium erigeronatum***, S.

Aecidium Compositarum, var. **Eupatoriæ**, (S.) B.

NOTE. For the *Aecidium* on *Eupatorium ageratoides*, see *Aecidium tenue*, S. See also *Aecidium roseum*, Diet. & Holw.

B. Grev. **3**: 60 (102). Dec. 1874.
Burrill, Bull. Ill. Lab. **2**: 231. *d.* 1885 and Rept. Ill. Ind. Univ. **12**: 144. *d.* 1885.
*Ell. N. A. F. *1419*. 1885.
De Toni in Sacc. Syll. **7**: 798. *d.* 28 Oct. 1888.
Webber, Bull. Nebr. Exp. Sta. **1**: 330 (60). 18 Dec. 1889.
Webber, Rept. Nebr. Agr. **1889**: 210 (70). 1890.
Detmers, Bull. Ohio Exp. Sta. 44: 140. Sept. 1892.
*Shear, N. Y. Fungi *127*. 1893.
Freeman, Minn. Bot. Studies II. 5: 557. 20 July 1901.
Cæoma compositarum, var. ***Eupatoriæ***, S.
S. Syn. Am. Bor. 292 no. 2867. 1834.
?Aecidium Compositarum, Auct. Amer. p. p.
Trel. Tr. Wis. Acad. **6**: 137 (33). Nov. 1884.
Davis, Tr. Wis. Acad. **9**: 161. 21 Aug. 1893.
Kellerm. & Werner, Geol. Ohio 7^2: 346. Jan. 1895.
Underw. & Earle, Bull. Ala. Exp. Sta. 80: 208. 28 June 1897.
Underw. Proc. Ind. Acad. **1894**: 151. June 1897.
Snyder, Proc. Ind. Acad. **1896**: 217. 1897.
Barthol. Tr. Kans. Acad. **16**: 187. June 1899.
Earle in Mohr, Contr. U. S. Nat. Herb. **6**: 192. 31 July 1901.

Aecidium on **Euthamia.**
See under ***Aecidium Asterum***, S. sec. Freeman.

Aecidium on **Gnaphalium.**
See ***Aecidium gnaphaliatum***, S.

Aecidium on **Grindelia.**
See ***Aecidium Grindeliæ***, Syd.

Aecidium Compositarum, Auct. Amer. p. p. On **Helenium.**
*Seymour & Earle E. F. Suppl. *B 28*. 5 April 1898.
?Aecidium Prenanthis, Auct. Amer. p.p.
Tracy & Earle in Greene, Pl. Baker. **1**: 19. 22 Feb. 1901.
Earle in Greene, Pl. Baker **2**: 2. 25 March 1901.

Aecidium on **Helianthella.**
See ***Aecidium Helianthellæ***, Arth.

Aecidium Compositarum, var. **Helianthi,** Burrill.

NOTE. See also *Aecidium Helianthi-mollis*, S. and *Aecidium trachelifoliatum*, S. See Burrill, 1885, Barthol. 1889, for notes on *Aecidia* of *Helianthus*.

Burrill, Bull. Ill. Lab. **2**: 232. *d.* 1885 and Rept. Ill. Univ. **12**: 145. *d.* 1885.
De Toni in Sacc. Syll. **7**: 799. *d.* 28 Oct. 1888.
Webber, Rept. Nebr. Agr. **1889**: 210 (70). 1890.
Williams, Bull. S. Dak. Exp. Sta. 29: 49. Dec. 1891.
Smith & Pound, Bot. Surv. Nebr. 2: 28. 15 April 1893.
Detmers, Bull. Ohio Exp. Sta. tech. ser. 1: 174. April 1893.
Cockerell, Zoe **4**: 282. Oct. 1893.
*Syd. Uredineen *1247*. 1898.
Hume, Proc. Davenport Acad. **7**: 251. 12 May 1899.
*Ell. & Ev. Fung. Columb. *1392*. May 1899.
Barthol. Tr. Kans. Acad. **16**: 188. June 1899.
*Syd. Uredineen *1394*. 1899.
Freeman, Minn. Bot. Studies II. 5: 557. 20 July 1901.
Aecidium Helianthi, Pk.
Pk. Rept. N. Y. Mus. **24**: 107. 1872.
?Aecidium Compositarum, Auct. Amer. p. p.
Arth. Bull. Iowa Agr. Coll. **1884**: 165. Jan. 1885.
Gall. Bull. U. S. Agr. Veg. Pathol. 8: 55. 1889.
Kellerm. & Werner, Geol. Ohio 7^2: 346. Jan. 1895.
Underw. & Earle, Bull. Ala. Exp. Sta. 80: 208. 28 June 1897.
Claassen, Rept. Ohio Acad. **5**: 68. 1897.
Barthol. Tr. Kans. Acad. **16**: 187. June 1899.
Nelson, Rept. Wyo. Exp. Sta. **10**: (35). 1900.
Earle in Mohr, Contr. U. S. Nat. Herb. **6**: 192. 31 July 1901.
Patterson, Bull. U. S. Agr. Pl. Industry 8: 8. 3 Feb. 1902.

Aecidium Compositarum, var. **Heliopsidis,** Wint.
Wint. & Demet. Hedw. **24**: 179 (3). Oct. 1885.
?Aecidium Compositarum, Auct. Amer. p. p.
Claassen, Rept. Ohio Acad. **5**: 68. 1897.

Aecidium on **Hieracium.**
See ***Aecidium Columbiense,*** Ell. & Ev.
See ***Aecidium hieraciatum,*** S.

Aecidium on **Iva.**
See ***Aecidium intermixtum,*** Pk.

Aecidium on **Krigia.**
See ***Aecidium Dandelionis,*** S.

Aecidium Compositarum, var. **Lactucæ,** Burrill.
Burrill, Bull. Ill. Lab. **2**: 232. *d.* 1885 and Rept. Ill. Ind. Univ. **12**: 145. *d.* 1885.
De Toni in Sacc. Syll. **7**: 799. *d.* 28 Oct. 1888.
Webber, Rept. Nebr. Agr. **1889**: 210 (70). 1890.
*Seymour & Earle, E. F. *484*. 15 Oct. 1897.
Hume, Proc. Davenport Acad. **7**: 252. 12 May 1899.
Tracy & Earle in Greene, Pl. Baker. **1**: 17. 22 Feb. 1901.
Freeman, Minn. Bot. Studies II. 5: 557. 20 July 1901.
Lindr. Acta Soc. Fauna et Fl. Fennica 20^9: 21. 1901.
*Barthol., Ell. & Ev. Fung. Columb. *1601*. Oct. 1902.
Bubak, Centralbl. Bact. 2 Abt. **9**: 924. 30 Dec. 1902.
?Aecidium Compositarum, Auct. Amer. p. p.
Trel. Tr. Wis. Acad. **6**: 137 (33). Nov. 1884.
Arth. Bull. Iowa Agr. Coll. **1884**: 165. Jan. 1885.

Ell. & Ev. Jour. Myc. **1**: 86. July 1885.
Pammel, Agr. Sci. **7**: 26. Jan. 1893.
Underw. Proc. Ind. Acad. **1894**: 151. Oct. 1895.
Barthol. Tr. Kans. Acad. **16**: 187. June 1899.

Aecidium on **Lactuca.**
See also ***Aecidium hemisphæricum,*** Pk.
See also ***Aecidium Prenanthis,*** Auct. Amer. p. p.

Aecidium Compositarum, var. **Liatridis,** Webber.
See ***Aecidium Liatridis,*** Ell. & Anderson.

Aecidium Compositarum, var. **Lygodesmiæ,** Webber.
See ***Aecidium Lygodesmiæ,*** Shear.

Aecidium Compositarum, Auct. Amer. p. p. On **Mikania.**
B. Grev. **3**: 60 (102). Dec. 1874.

Aecidium on **Montanoa.**
See ***Aecidium Montanoæ***, Diet. & Holw.

Aecidium Compositarum, Auct. Amer. p. p. On **Polymnia.**
Davis, Tr. Wis. Acad. **9**: 161. 21 Aug. 1893.

Aecidium Compositarum, var. **Prenanthis,** Auct. Amer.

NOTE. It is uncertain to what species the following references to æcidia on *Prenanthes* relate, but apparently some are the æcidia of *Puccinia Prenanthis,* (P.) as limited by Lindroth, *q. v.* As far as we know the name *Aecidium Prenanthis* on *Prenanthes* does not occur in American literature except incidentally in Pk. Rept. N. Y. Mus. **50**: 115. March 1898. See *Aecidium Prenanthis*, Auct. Amer. p. p.

Freeman, Minn. Bot. Studies II. 5: 556. 20 July 1901.
?Aecidium Compositarum, Auct. Amer. p. p.
Trel. Tr. Wis. Acad. **6**: 137 (33). Nov. 1884.
Arth. Bull. Iowa Agr. Coll. **1884**: 165. Jan. 1885.
Orton, Rept. Vt. Exp. Sta. **11**: 210. Sept. 1898 and Contr. Bot. Vt. 2: 12. Sept. 1898.
Patterson, Bull. U. S. Agr. Pl. Industry 8: 8. 3 Feb. 1902.

Aecidium Compositarum, var. **Rudbeckiæ,** Pk. in litt.
*Ell. N. A. F. *1018 a.* 1883.
?Aecidium Compositarum, Auct. Amer. p. p.
Arth. Bull. Iowa Agr. Coll. **1884**: 165. Jan. 1885.
*Syd. Uredineen 97. 1889.
Davis, Tr. Wis. Acad. **9**: 161. 21 Aug. 1893.
Pound, Bot. Surv. Nebr. 3: 9. 18 June 1894.
Hume, Proc. Davenport Acad. **7**: 252. 12 May 1899.

Aecidium Compositarum, var. **Senecionis,** Auct. Amer.

NOTE. The *Aecidia* on *Senecio* in references here given probably belong to some heteræcious species of *Puccinia* but their development has not been studied. See also *Aecidium sclerothecioides*, Ell. & Ev. For further information see Diet. Hedw. **30**: 297. Dec. 1891 and Klebahn, Rostpilze 308. 1904.

Webber, Bull. Nebr. Exp. Sta. **1**: 330 (60). 18 Dec. 1889.
Webber, Rept. Nebr. Agr. **1889**: 210 (70). 1890.
?Aecidium Compositarum, Auct. Amer. p. p.
Arth. Bull. Iowa Agr. Coll. **1884**: 165. Jan. 1885.
Davis, Tr. Wis. Acad. **11**: 167. Aug. 1897.
?Aecidium Senecionis, Auct. Amer.
*Ell. N. A. F. *1425.* 1885.
Cockerell, Zoe **4**: 283. Oct. 1893.
Pk. Rept. N. Y. Mus. **50**: 115. 28 March 1898.

?Aecidium Jacobeæ, Auct. Amer.
Freeman, Minn. Bot. Studies II. 5: 556. 20 July 1901.

Aecidium Compositarum, var. **Silphii**, Burrill.
See ***Aecidium Silphii***, Syd.

Aecidium Compositarum, var. **Solidaginis**, Ell.
See ***Aecidium Solidaginis***, S.

Aecidium on **Solidago.**
See ***Aecidium recedens***, Arth.
See ***Aecidium solidaginicolum***, Ell. & Ev.

Aecidium on **Taraxacum.**
See ***Aecidium Taraxaci***, Schm. & Kze.

Aecidium Compositarum, Auct. Amer. p. p. On **Troximon.**
Anderson, Jour. Myc. **5**: 82. June 1889.
Nelson, Rept. Wyo. Exp. Sta. **10**: (35). 1900.

Aecidium Compositarum, Auct. Amer. p. p. On **Vernonia.**
Trel. Tr. Wis. Acad. **6**: 137 (33). Nov. 1884.

Aecidium on **Wedelia.**
See ***Aecidium Wedeliæ***, Earle.

Aecidium Compositarum, var. **Xanthii**, Ell.

NOTE. Thought by some botanists to be the aecidial stage of *Puccinia Xanthii*, S. with which it has been found.

*Ell. N. A. F. *1018 b.* 1883.
Burrill, Bull. Ill. Lab. **2**: 231. *d.* 1885 and Rept. Ill. Ind. Univ. **12**: 145. *d.* 1885.
De Toni in Sacc. Syll. **7**: 799. *d.* 28 Oct. 1888.
Pound & Clements, Bot. Surv. Nebr. 5: 24. 30 March 1901.
?Aecidium Compositarum, Auct. Amer. p. p.
Davis, Tr. Wis. Acad. **9**: 161. 21 Aug. 1893.

Aecidium conorum-Piceæ, Reess.

NOTE. *Peridermium conorum-Piceæ*, Pk. in litt. was described by Thuemen, Mittheil. forstl. Versuchs. Oest. **2**: 314 (18), 1880 as *Peridermium Engelmanni*, Thm., *q. v.*, the host being *Picea Engelmanni*. Farlow, Bull. Bussey Inst. **2**: 239, 1878, given below is probably the same. In Farlow, Bull. Bussey Inst. 1: 433, March 1876, the host was *Picea excelsa*. For further information see Klebahn, Rostpilze 391. 1904.

Farl. Bull. Bussey Inst. **1**: 433. March 1876.
?Farl. Bull. Bussey Inst. **2**: 239. Jan. 1878.
Peridermium conorum, Thm.
Thm. Mittheil. forstl. Versuchs. Oest. **2**: 313 (17). *d.* 1880.
*Seymour & Earle, E. F. *220.* 1 Feb. 1893.

Aecidium Convallariæ, Schum.

NOTE. According to Soppitt, Jour. of Bot. **28**: 213, July 1890, this is the æcidial stage of *Puccinia Digraphidis*, Soppitt. For further information see Klebahn, Rostpilze 265, 267. 1904.

Pk. Rept. N. Y. Mus. **25**: 92. Sept. 1873.
Pk. Rept. N. Y. Mus. **29**: 77. 1878.
*Ell. N. A. F. *229.* 1879.
*Wint. Fung. Eur. *3026.* 1884.
Trel. Tr. Wis. Acad. **6**: 136 (32). Nov. 1884.
Arth. Bull. Iowa Agr. Coll. **1884**: 165. Jan. 1885.
Burrill, Bull. Ill. Lab. **2**: 239. *d.* 1885 and Rept. Ill. Ind. Univ. **12**: 149. *d.* 1885.

*Ell. N. A. F. *1421*. 1885.
Kellerm. & Carl. Tr. Kans. Acad. **10**: 91. 1887.
De Toni in Sacc. Syll. **7**: 828. *d.* 28 Oct. 1888.
Webber, Bull. Nebr. Exp. Sta. **1**: 330 (60). 18 Dec. 1889.
Gall. Bull. U. S. Agr. Veg. Pathol. 8: 55. 1889.
Webber, Rept. Nebr. Agr. **1889**: 210 (70). 1890.
Davis, Tr. Wis. Acad. **9**: 161. 21 Aug. 1893.
Tubeuf-Smith, Diseases of Plants 410. 1897.
Herbst, Fungal Fl. Lehigh Valley 176. *d.* 1899.
Freeman, Minn. Bot. Studies II. 5: 554. 20 July 1901.
Cæoma convallariatum, Lk.
S. Syn. Am. Bor. 292 no. 2857. 1834.

Aecidium Convallariæ, Schum., var. **Lilii**, Farl.

NOTE. This variety is not connected with *Puccinia Digraphidis*, Soppitt, but may possibly be the aecidium of *Uromyces Holwayi*, Lagerh.

*Ell. N. A. F. *228*. 1879.
Farl. Proc. Am. Acad. **18**: 74. July 1883.

Aecidium convolvulatum, S.
See ***Cystopus Ipomœæ-panduranæ***, Farl.

Aecidium Convolvuli, M. A. Curtis.
See ***Cystopus Ipomœæ-panduranæ***, Farl.

Aecidium Cordiæ, Henn.
Magn. in Bres. Henn. & Magn. in Engler, Bot. Jahrb. **17**: 491. *d.* 1893. West Indies.

Aecidium cornutum, P. in Gmel.

NOTE. Since what is believed to be the true *Gymnosporangium conicum*, D C. occurs in New England and northward on *Juniperus communis*, the citations of *Aecidium cornutum* on *Pirus Americana* in those regions probably refer to the true *Aecidium cornutum* of Europe. Citations of *Aecidium cornutum* in more southern regions and on *Pirus arbutifolia* and *Amelanchier* may relate to *Gymnosporangium globosum* which has also been cultivated on *Pirus Americana*. See also *Aecidium globosum*, (Farl.) and *Aecidium Nidus-avis*, (Thax.). R. T.

Rœstelia cornuta, Fr.
Pk. Rept. N. Y. Mus. **24**: 93. 1872.
Pk. Rept. N. Y. Mus. **29**: 76. 1878.
Farl. Bull. Bussey Inst. **2**: 225. Jan. 1878.
Farl. Anniv. Mem. Boston Soc. 28. 1880.
*Ell. N. A. F. *1089*. 1883.
Farl. Proc. Am. Acad. **18**: 75. July 1883.
Seymour, Tr. Am. Hort. Soc. **4**: 155 (4). 7 April 1887.
Thax. Bot. Gaz. **14**: 169. July 1889.
Ell. in Cat. Pl. N. J. 504. 1889.
Tubeuf, Centralbl. Bact. **9**: 93. 2 Feb. 1891.
Thax. Bull. Conn. Exp. Sta. 107: 4. 15 April 1891.
*Seymour & Earle, E. F. *248 x*. 1 Feb. 1893.
Ricker, Univ. of Maine Studies 3: 54. 30 April 1902.
On ***Pirus arbutifolia.***
Thax. Bot. Gaz. **14**: 169. July 1889.
Host unknown.
Muhl. Cat. Pl. Am. Sept. 1 ed. 104. 1813. 2 ed. 107. 1818 (as Aecidium).
Bundy, Geol. Wis. 1873–79, **1**: 400. 1883.
?Rœstelia lacerata, Auct. Amer. p. p. On ***Pirus Americana.***
Ricker. Univ. of Maine Studies 3: 54. 30 April 1902.

Aecidium cornutum, var. **Amelanchieris,** (Auct. Amer.).

N.B. References to *Rœstelia cornuta* on *Amelanchier alnifolia* are to be found under *Aecidium Nelsoni,* (Arth.)

Aecidium cornutum, Auct. Amer. p. p.
Pk. Rept. N. Y. Mus. **24**: 93. 1872.
Pk. Rept. N. Y. Mus. **29**: 76. 1878.
Farl. Anniv. Mem. Boston Soc. 28. 1880.
Seymour, Tr. Am. Hort. Soc. **4**: 155 (4). 7 April 1887.
Thax. Bot. Gaz. **14**: 169. July 1889.
Rœstelia Amelanchieris, Auct. Amer.
*Ell. & Ev. N. A. F. *2715.* May 1892.
Rœstelia cornuta, var. ***Amelanchieris,*** Seymour & Earle.
*Seymour & Earle, E. F. *248.* 1 Feb. 1893.
Orton, Rept. Vt. Exp. Sta. **11**: 212. Sept. 1898 and Contr. Bot. Vt. 2: 14. Sept. 1898.

Aecidium corticolum, Auct. Amer. p. p.
See ***Aecidium Pini,*** (Willd.) P.

Aecidium Corydalis, (Ell. & Kellerm.) Webber.
Webber, Rept. Nebr. Agr. **1889**: 210 (70). 1890.
Aecidium Dicentræ, var. ***Corydalis,*** Ell. & Kellerm.
*Ell. N. A. F. *1435.* 1885.
Aecidium Fumariacearum, Kellerm. & Swingle.
Kellerm. & Swingle, Jour. Myc. **4**: 95. *d.* Sept. 1888.
Sacc. Syll. **9**: 322. *d.* 15 Sept. 1891.
Freeman, Minn. Bot. Studies II. 5: 555. 20 July 1901.

Aecidium crassum, P.
See ***Aecidium Rhamni,*** P. in Gmel.

Aecidium Cratægi, var. **Oxyacanthæ,** S.
See ***Aecidium globosum,*** (Farl.).

Aecidium crepidicolum, Ell. & Gall.

NOTE. This may belong to *Puccinia Crepidis-acuminatæ,* Syd. An *Aecidium* on *Crepis* is said to belong to a *Puccinia* on *Carex.* See Klebahn, Rostpilze 303. 1904.

Ell. & Gall. Jour. Myc. **6**: 31. *d.* March 1890.
Sacc. Syll. **9**: 324. *d.* 15 Sept. 1891.
Magn. Hedw. Beibl. **40**: (32). 20 April 1901.

Aecidium Cressæ, D C.

NOTE. This *Aecidium* accompanies what is supposed to be *Puccinia Cressæ,* (D C.) Lagerh. in Southern California; but compare also *Puccinia cretica,* Holw.

B. Grev. **3**: 60 (102). Dec. 1874.
Diet. in Engler & Prantl. Pflanzenfam. **1**^{1**}: 34. 1897.
Patterson, Bull. U. S. Agr. Pl. Industry 8: 8. 3 Feb. 1902.

Aecidium Crotonopsidis, Burrill.
Burrill, Bot. Gaz. **9**: 190. *d.* Dec. 1884.
Burrill. Bull. Ill. Lab. **2** 237. *d.* 1885 and Rept. Ill. Ind. Univ. **12**: 148. *d.* 1885.
*Ell. & Ev. N. A. F. *1824.* 1887.
De Toni in Sacc. Syll. **7**: 824. *d.* 28 Oct. 1888.
Aecidium splendens, Wint.
Wint. & Demet. Hedw. **24**: 181 (5). Oct. 1885.
*Wint. Fung. Eur. *3224.* 1885 and Hedw. **24**: 256. Dec. 1885.
*Roum. Fung. Gall. *3860.* 1886.
Roum. Rev. Myc. **8**: 196. 1 Oct. 1886.

De Toni in Sacc. Syll. **7**: 784. *d.* 28 Oct. 1888.
Gall. Bull. U. S. Agr. Veg. Pathol. 8: 56. 1889.
Tubeuf-Smith, Diseases of Plants 410. 1897.

Aecidium cylindricum, Ell. & Ev.
Ell. & Ev. Bull. Torr. Bot. Club **22**: 61. *d.* 26 Feb. 1895.
Sacc. Hedw. **35**: xviii. 25 Feb. 1896. [Reportorium No. 7.]
Smyth, Tr. Kans. Acad. **15**: 70. March 1898.
Sacc. & Syd. Syll. **14**: 382. *d.* 20 Aug. 1899.

Aecidium Cyparissiæ, Auct. Amer.
See ***Aecidium Euphorbiæ***, S.

Aecidium Dakotensis, Griffiths.
*Griffiths, West Am. Fung. *389*. 21 May 1902.
Griffiths, Bull. Torr. Bot. Club **29**: 300. *d.* 26 May 1902.

Aecidium Daleæ, Kellerm. & Swingle.
Kellerm. & Swingle, Jour. Myc. **5**: 13. *d.* March 1889.
Webber, Bull. Nebr. Exp. Sta. **1**: 331 (61). 18 Dec. 1889.
Webber, Rept. Nebr. Agr. **1889**: 210 (70). 1890.
Sacc. Syll. **9**: 320. *d.* 15 Sept. 1891.
Barthol., Tr. Kans. Acad. **16**: 188. June 1899.
*Syd. Uredineen *1448*. June 1900.
*Shear, Ell. & Ev. Fung. Columb. *1473*. May 1901.

Aecidium Dandelionis, S. On **Krigia.**
S. Syn. Car. 66 (40) no. 434. *d.* 1822.
Cæoma compositatum, var. ***Prenanthis***, S.
S. Syn. Am. Bor. 292 no. 2867. 1834.
Uredo Compositarum, Spreng.
Spreng. in L. Syst. Veg. 16 ed. **4**[1]: 572. *d.* 1827.
?Aecidium Compositarum, Auct. Amer. p. p.
Trel. Tr. Wis. Acad. **6**: 137 (33). Nov. 1884.
Freeman, Minn. Bot. Studies II. 5: 556. 20 July 1901.

Aecidium decolorans, (Pk.).

NOTE. The development of this species is unknown and its relation to other acicolous *Aecidia* on *Abies* is uncertain. See note under *Aecidium abietinum*, A. & S.

Peridermium decolorans, Pk.
Pk. Rept. N. Y. Mus. **27**: 104. *d. pl. 1, f. 19–21.* 1875.
Pk. Tr. Albany Inst. **8**: 292 (12). 1876.
Pk. Rept. N. Y. Mus. **29**: 77. 1878.
Pk. Pl. Summit Mt. Marcy 405, 409. 1880.
Thm. Mitth. forstl. Versuchs. Oest. **2**: 321 (25). 1880.
Pk. Rept. N. Y. Mus. **33**: 38. Oct. 1883.
De Toni in Sacc. Syll. **7**: 837. 28 Oct. 1888.
Pk. Rept. N. Y. Mus. **44**: 119 (7). Dec. 1891.
*Seymour & Earle, E. F. *221*. 1 Feb. 1893.
Orton, Rept. Vt. Exp. Sta. **11**: 212. Sept. 1898 and Contr. Bot. Vt 2: 14. Sept. 1898.
Pk. Bull. N. Y. Mus. **6**: 227. July 1899.
Pk. Rept. N. Y. Mus. **52**: 665, 672. Dec. 1899. [Bull. **5**: no. 25.]
Davis, Tr. Wis. Acad. **14**: 103. Sept. 1903.
Peridermium abietinum, var. ***decolorans,*** Thm.
Thm. Mittheil. forstl. Versuchs. Oest. **2**: 321 (25). *d.* 1880.
*Ell. N. A. F. *1024*. 1883.
Arth & Holw. Bull. Minn. Surv. 3: 31. 1 Oct. 1887.
Freeman, Minn. Bot. Studies II. 5: 559. 20 July 1901.
Chrysomyxa Ledi, (Aecidium) Wint. Fung. Eur.
*Wint. Fung. Eur. *3607*. 1890.

Aecidium deformans, Mayr.

NOTE. This species on *Pinus mitis* was named and figured but not described by the author. The Japanese species, *Aecidium giganteum,* Mayr, nearly related to the above, is said by Shirai, Tokio Bot. Mag. **13**: (1–6) *pl. 4, 5,* 1899, and Zeit. Pflanzenkr. **10**: 218, 8 Sept. 1900, to belong to *Cronartium Quercuum,* (B.) Miyabe, a species found also in North America.

Mayr, Waldungen von Nordamer. 119, 434. *pl. 10.* 1890.
Peridermium deformans, Tubeuf-Smith.
Tubeuf-Smith, Diseases of Plants 416. 1897.

Aecidium Delphinii, Barthol.

NOTE. See also *Aecidium Ranunculacearum,* Auct. Amer. p. p. on *Delphinium.* See also Ell. & Ev. N. A. F. *3480.* 1896.

Ell. & Barthol. Jour. Myc. **8**: 173. *d.* 20 Dec. 1902.

Aecidium Dicentræ, Trel.

Trel. Tr. Wis. Acad. **6**: 136 (32). *d.* Nov. 1884 and Jour. Myc. **1**: 15. *d.* Jan. 1885.
Kellerm. Bull. Wash. Lab. **1**: 75. Jan. 1885 and Tr. Kans. Acad. **9**: 81. 1885.
Burrill, Bull. Ill. Lab. **2**: 223. *d.* 1885 and Rept. Ill. Ind. Univ. **12**: 140. *d.* 1885.
Kellerm. & Carl, Tr. Kans. Acad. **10**: 91. 1887.
De Toni in Sacc. Syll. **7**: 777. *d.* 28 Oct. 1888.
*Kellerm. & Swingle, Kansas Fungi *2.* 1 May 1889.
Webber, Bull. Nebr. Exp. Sta. **1**: 331 (61). 18 Dec. 1889.
*Pazschke, Fung. Eur. *3634.* 1890.
*Syd. Uredineen *497.* May 1891.
Detmers, Bull. Ohio Exp. Sta. tech. ser. **1**: 174. April 1893.
Underw. Proc. Ind. Acad. **1893**: 49. Aug. 1894.
Kellerm. & Werner, Geol. Ohio **7**^{2}: 346. Jan. 1895.
Tubeuf-Smith, Diseases of Plants 410. 1897.
Barthol., Tr. Kans. Acad. **16**: 188. July 1899.
*Pazschke, Fung. Eur. *4335.* June 1903.
Aecidium Dicentræ, Burrill.
Burrill, Bot. Gaz. **9**: 189. *d.* Dec. 1884.

Aecidium Dicentræ, var. **Corydalis,** Ell. & Kellerm.
See ***Aecidium Corydalis,*** Webber.

Aecidium Diodiæ, Burrill.

Burrill, Bot. Gaz. **9**: 189. *d.* Dec. 1884.
Burrill, Bull. Ill. Lab. **2**: 228. *d.* 1885 and Rept. Ill. Ind. Univ. **12**: 143. *d.* 1885.
De Toni in Sacc. Syll. **7**: 795. *d.* Oct. 28, 1888.
Tracy & Earle, Bull. Miss. Exp. Sta. 34: 89. May 1895.
*Barthol., Ell. & Ev. Fung. Columb. *1704.* Feb. 1903.

Aecidium Drabæ, Tracy & Gall.

NOTE. See also *Aecidium monoicum,* Pk.

Tracy & Gall. Jour. Myc. **4**: 21. *d.* March 1888.
De Toni in Sacc. Syll. **7**: 779. *d.* 28 Oct. 1888.
Jones, Proc. Cal. Acad. II. **5**: 730. 3 Oct. 1895.
Tubeuf-Smith, Diseases of Plants 410. 1897.

Aecidium Dracontii, M. A. Curtis.
See ***Aecidium Caladii,*** S.

Aecidium dracontionatum, S.
See ***Aecidium Caladii,*** S.

Aecidium dubium, Clint.

See ***Aecidium Calystegiæ,*** Desm.

Aecidium elatinum, A. & S.

NOTE. This is the æcidium of *Melampsorella Caryophyllacearum,* (D C.) Schrt. See Ed. Fischer, Ber. Deutsch. Bot. Ges. **19**; 397. 26 June 1901, and Zeit. Pflanzenkr. **12**: 193. 7 Oct. 1902. It may be remarked that the distribution of *Melampsorella Caryophyllacearum,* (D C.) Schrt. in the Eastern United States corresponds with that of *Aecidium elatinum.* For further information see Klebahn, Rostpilze 396. 1904.

De Toni in Sacc. Syll. **7**: 825. *d.* 28 Oct. 1888.
Anderson, A. P., Bot. Gaz. **22**: 235. 23 Sept. 1896.
Anderson, A. P., Bot. Gaz. **24**: 309. *pl. 14, 15.* 17 Nov. 1897.
Diet. in Engler & Prantl, Pflanzenfam. **1**^{1**}: 78. *f. 52, 53 A.* 1897.
Tubeuf-Smith, Diseases of Plants 404. *f. 241, 242.* 1897.
Anderson, A. P., Bull. Torr. Bot. Club **29**: 31. 28 Jan. 1902.
Ricker, Univ. of Maine Studies 3: 51. 30 April 1902.
Peridermium elatinum, Schm. & Kze.
Pk. Rept. N. Y. Mus. **27**: 104. 1875.
Pk. Rept. N. Y. Mus. **28**: 86. 1876.
Pk. Rept. N. Y. Mus. **29**: 77. 1878.
Thm. Mitth. forstl. Versuchs. Oest. **2**: 317 (21). *d.* 1880.
Farl. Appalachia **3**: 243. Jan. 1884.
*Ell. N. A. F. *1437.* 1885.
Richards, Proc. Am. Acad. **31**: 264. *pl. 1, f. 14.* 1896.
Davis, Tr. Wis. Acad. **11**: 174. Aug. 1897.
Pk. Bull. N. Y. Mus. **6**: 227. July 1899.
Nelson, Rept. Wyo. Exp. Sta. **10**: (30). 1900.

Aecidium elegans, B. & C.

NOTE. This is understood to be the æcidial stage of *Uromyces elegans,* Lagerh.

*Rav. Fung. Car. **2**: *88.* 1853.
*Rav. Fung. Am. *727.* 1882.
Farl. & Seymour, H. I. 30. Aug. 1888.
*Seymour & Earle, E. F. *508.* 7 June 1899.
Aecidium Orobi, var. ***elegans,*** B.
B. Grev. **3**: 61 (103). *d.* Dec. 1874.
*Thm. Myc. Univ. *1024.* 1878.

Aecidium Ellisii, Tracy & Gall.

NOTE. In Bot. Gaz. **35**: 20. 20 Jan. 1903, Arthur states that this is the æcidium of *Puccinia subnitens,* Diet. N. B. This species is not to be confounded with *Ræstelia Ellisii,* Pk., a synonym of *Aecidium Botryapites,* (S.). See also Syd. Mon. Ured. 1: 748. 1 Nov. 1903.

Tracy & Gall. Jour. Myc. **4**: 21. *d.* March 1888.
De Toni in Sacc. Syll. **7**: 819 *d.* 28 Oct. 1888.
Hume, Proc. Davenport Acad. **7**: 252. 12 May 1899.
Arth. Bot. Gaz. **35**: 20. 20 Jan. 1903.
Kellerm. Jour. Myc. **9**: 234. 31 Dec. 1903.

Aecidium Engelmanni, (Thm.) Diet.

NOTE. See note under *Aecidium conorum-Piceæ,* Reess.

Diet. in Engler & Prantl, Pflanzenfam. **1**^{1**}: 79. 1897.
Peridermium Engelmanni, Thm.
Thm. Mitth. forstl. Versuchs. Oest. **2**: 314 (18). *d.* 1880.
De Toni in Sacc. Syll. **7**: 836. *d.* 28 Oct. 1888.
Tubeuf-Smith, Diseases of Plants 417. 1897.

Pk. Bull. N. Y. Mus. **6**: 227. July 1899.
Pk. Rept. N. Y. Mus. **52**: 650. Dec. 1899. [Bull. **5**: no. 25.]

Aecidium Ephedræ, (Cke.) Diet.
Diet. in Engler & Prantl, Pflanzenfam. **1**1**: 79. 1897.
Aecidium Pini, var. ***Ephedræ,*** B. & C.
*Rav. Fung. Car. **3**: *95*. 1855.
Peridermium Pini, var. ***minus,*** B. & C.
B. Grev. **3**: 59 (101) no. 576. *d.* Dec. 1874.
Coleosporium senecionis, var. ***minus,*** De Toni. I.
De Toni in Sacc. Syll. **7**: 752. *d.* 28 Oct. 1888.
Peridermium Ephedræ, Cke.
Cke. Ann. N. Y. Acad. **1**: 182. May 1878.
Thm. Mitth. forstl. Versuchs Oest. **2**: 323 (27). *d.* 1880.
De Toni in Sacc. Syll. **7**: 835. *d.* 28 Oct. 1888.
Tubeuf-Smith, Diseases of Plants 417. 1897.
Cockerell, Jour. Myc. **10**: 50. 19 March 1904.

Aecidium Epilobii, D C. On **Epilobium.**

NOTE. The true *Aecidium Epilobii,* D C. belongs to *Puccinia Epilobii-tetragoni,* (D C.) Wint. and we have included here references to *Aecidia* on species of *Epilobium,* most of which at least seem really to belong to this species. With regard to the references here given to *Aecidia* on species of *Oenothera* there is some doubt, for although by recent writers they are generally placed here, their position cannot be considered certain. Compare also *Aecidium Oenotheræ,* Pk.

Farl. Bot. Gaz. **8**: 276. Aug. 1883.
Farl. Appalachia **3**: 239. Jan. 1884.
Halsted, Bull. Iowa Agr. Coll. **1888**: 116. April 1888.
*Ell. & Ev. N. A. F. *3580*. 24 Jan. 1898.
*Ell. & Ev. Fung. Columb. *1300*. May 1898.
Tracy & Earle in Greene, Pl. Baker. **1**: 17. 22 Feb. 1901.
Trel. in Sacc. Pk. & Trel., Harriman Alaska Exp. **5**: 37. 5 April 1904.
Cæoma Epilobii, Schl.
Ehrb. Horæ Phys. Berol. 96. 1820.
Aecidium Epilobii, Auct. Amer. On ***Oenothera.***
Sprague, Proc. Boston Soc. **6**: 319. 1859.
Pk. Rept. N. Y. Mus. **23**: 58. 1872.
Pk. Rept. N. Y. Mus. **24**: 106. 1872.
Frost in Cat. Pl. Amherst 85. 1875.
Pk. Rept. N. Y. Mus. **29**: 76. 1878.
*Ell. N. A. F. *226*. 1879.
Bundy, Geol. Wis. 1873–79 **1**: 400. 1883.
Arth. Bull. Iowa Agr. Coll. **1884**: 165. Jan. 1885.
Burrill, Bull. Ill. Lab. **2**: 227. *d.* 1885 and Rept. Ill. Ind. Univ. **12**: 142. *d.* 1885.
Cobb, List Pl. Amherst 40. 1887.
Kellerm. & Carl. Tr. Kans. Acad. **10**: 91. 1887.
*Seymour & Earle, E. F. *281*. 1 May 1893.
Halsted, Rept. N. J. Exp. Sta. **1892**: 347. 1893.
Tracy & Earle, Bull. Miss. Exp. Sta. 34: 89. May 1895.
Atk., Bull. Cornell Univ. **3**: 21. 25 June 1897.
Underw. & Earle, Bull. Ala. Exp. Sta. 80: 209. 28 June 1897.
Halsted, Bull. Torr. Bot. Club **26**: 382. 18 July 1899.
Halsted, Rept. N. J. Exp. Sta. **1898**: 368. 1899.
Earle in Mohr, Contr. U. S. Nat. Herb. **6**: 192. 31 July 1901.
Davis, Tr. Wis. Acad. **14**: 103. Sept. 1903.

Aecidium Oenotheræ, Fung. Columb. non Pk.
*Ell. & Ev. Fung. Columb. *1388.* May 1899.

Aecidium Epilobii, Auct. Amer. p. p.
See ***Aecidium Isnardiæ,*** Lagerh.

Aecidium erigeronatum, S.

NOTE. On the basis of cultures Arthur describes this plant in Jour. Myc. **8**: 54, 30 June, 1902, as the æcidium of *Puccinia Caricis-Erigerontis,* Arth. See also Arth. Bot. Gaz. **35**: 16. 20 Jan. 1903.

N.B. Another *Aecidium, A. incurvum,* Tracy & Earle, on *Erigeron* is described.

S. Syn. Am. Bor. 309. 1834.
Pk. Rept. N. Y. Mus. **24**: 92, 107. 1872.
*Thm. Myc. Univ. *151.* 1875.
Pk. Rept. N. Y. Mus. **29**: 77. 1878.
Bundy, Geol. Wis. 1873–79, **1**: 400. 1883.
Arth. Bull. Iowa Agr. Coll. **1884**: 165. Jan. 1885.
Burrill, Bull. Ill. Lab. **2**: 229. *d.* 1885 and Rept. Ill. Ind. Univ. **12**: 143. *d.* 1885.
Brendel, Flora Peoriana 2 ed. 69. 1887.
De Toni in Sacc. Syll. **7**: 801. *d.* 28 Oct. 1888.
Webber, Bull. Nebr. Exp. Sta. **1**: 331 (61). 18 Dec. 1889.
Webber, Rept. Nebr. Agr. **1889**: 211 (71). 1890.
*Ell. & Ev. N. A. F. *2402.* 1890.
Detmers, Bull. Ohio Exp. Sta. 44: 138. Sept. 1892.
Detmers, Bull. Ohio Exp. Sta. tech. ser. **1**: 178. April 1893.
*Ell. & Ev. N. A. F. *2402 b.* Oct. 1893. (Issued with Cent. 30.)
*Ell. & Ev. Fung. Columb. *64.* 1893.
*Carl. Ured. Amer. *45.* 1894.
Kellerm. & Werner, Geol. Ohio **7**^{2}: 346. Jan. 1895.
Underw. Proc. Ind. Acad. **1894**: 151. Oct. 1895.
Tubeuf-Smith, Diseases of Plants 411. 1897.
Barthol. Tr. Kans. Acad. **16**: 188. June 1899.
*Barthol., Ell. & Ev. Fung. Columb. *1502.* Dec. 1901.
Kellerm. Jour. Myc. **9**: 237. 31 Dec. 1903.

Cæoma erigeronatum, S.
S. Syn. Am. Bor. 292 no. 2869. *d.* 1834.

?Aecidium Compositarum, Auct. Amer. p. p.
Trel. Tr. Wis. Acad. **6**: 137 (33). Nov. 1884.
Kellerm. Bull. Wash. Lab. **1**: 75. Jan. 1885 and Tr. Kans. Acad. **9**: 81. 1885.
Kellerm. & Carl. Tr. Kans. Acad. **10**: 91. 1887.
Gall. Bull. U. S. Agr. Veg. Pathol. 8: 55. 1889.
Hume, Proc. Davenport Acad. **7**: 252. 12 May 1899.
Pound & Clements, Bot. Surv. Nebr. 5: 24. 30 March 1901.

Aecidium Compositarum, forma ***Erigerontis,*** Wint.
Wint. & Demet. Hedw. **24**: 179 (3). Oct. 1885.
Freeman, Minn. Bot. Studies II. 5: 556. 20 July 1901.

Aecidium Euphorbiæ, S.

NOTE. *Aecidium Euphorbiæ,* P. in Gmel. 1791 was shown by Schrœter, Hedw. 14: 98. July 1875 to be the *Aecidium of Uromyces Pisi,* (P.) D By. This *Aecidium* on *Euphorbia Cyparissias* must be rare, even if it occurs at all, in the United States and we find scanty references to *Uromyces Pisi* in this country unless it has been published under some synonym which we are not able to recognize. See also Jordi, Centralbl. Bact. 2 Abt. **10**: 777. 3 Sept. 1903 where *Uromyces Astragali,* (Opiz) Sacc. is said to have

its æcidium on *Euphorbia Cyparissias*. For further information consult Klebahn, Rostpilze 330. 1904.

The *Aecidium Euphorbiæ*, S. dates from 1822 and is the æcidium of *Uromyces Euphorbiæ*, C. & P. (see Magnus, Ber. Deutsch. Bot. Ges. **14**: 376. 28 Dec. 1896) and under this name we give all references to *Aecidia* on different *Euphorbiæ*, since evidently the greater part relate to the æcidium of *Uromyces Euphorbiæ*, C. & P. Some references, especially those pertaining to the Western States, may perhaps be distinct but at present their development is unknown. Several species of *Uromyces* are known on *Euphorbia* in North America but some of them are believed to be destitute of an æcidial stage. See also Arth. Bot. Gaz. **29**: 270. 20 April 1900 and Jour. Myc. **8**: 51. 30 June 1902 and Carl. Science II. **13**: 250. 15 Feb. 1901.

Muhl. Cat. Pl. Am. Sept. 1 ed. 104. 1813. 2 ed. 107. 1818.
S. Syn. Car. 69 (43) no. 455. 1822.
Lea, Cat. Pl. Cin. 71. 1849.
Cke. Handbook 537. 1871.
Frost in Cat. Pl. Amherst 84. 1875.
Johnson, Bull. Minn. Acad. **1**: 296. 1877 and Rept. Minn. Surv. **5**: 85. 1877.
Pk. Rept. N. Y. Mus. **29**: 77. 1878.
Pk. Rept. N. Y. Mus. **30**: 76. Sept. 1878.
James, Jour. Cin. Soc. **2**: 67 (26). April 1879.
*Rav. Fung. Am. *484*. 1881.
Brendel, Flora Peoriana 1 ed. 362 (94). 1882. 2 ed. 69. 1887.
Arth. Bull. Iowa Agr. Coll. **1884**: 166. Jan. 1885.
Burrill, Bull. Ill. Lab. **2**: 237. *d*. 1885 and Rept. Ill. Ind. Univ. **12**: 148. *d*. 1885.
*Ell. & Ev. N. A. F. *1820*. 1887.
Cobb, List Pl. Amherst 40. 1887.
De Toni in Sacc. Syll. **7**: 823. *d*. 28 Oct. 1888.
Bennett, Cat. Pl. R. I. 89. 1888.
*Ell. & Ev. N. A. F. *2215*. Feb. 1889.
Cockerell, Jour. Myc. **5**: 85. June 1889.
Seymour, Proc. Boston Soc. **24**: 190. 8 Nov. 1889.
Webber, Bull. Nebr. Exp. Sta. **1**: 331 (61). 18 Dec. 1889.
Ell. in Cat. Pl. N. J. 505. 1889.
Gall. Bull. U. S. Agr. Veg. Pathol. 8: 55. 1889.
Webber, Am. Nat. **24**: 178. Feb. 1890.
Webber, Rept. Nebr. Agr. **1889**: 211 (71). 1890.
Williams, Bull. S. Dak. Exp. Sta. 29: 49. Dec. 1891.
*Seymour & Earle, E. F. *385*. 1 May 1893.
Halsted, Rept. N. J. Exp. Sta. **1892**: 349. 1893.
Underw. Proc. Ind. Acad. **1893**: 49. Aug. 1894.
*Ell. & Ev. Fung. Columb. *338*. 1894.
Kellerm. & Werner, Geol. Ohio **7²**: 346. Jan. 1895.
Tracy & Earle, Bull. Miss. Exp. Sta. 34: 89. May 1895.
Ell. & James in Holzinger, Contr. U. S. Nat. Herb. **3**: 275. 23 Nov. 1895.
McClatchie in Reid's Hist. Pasadena 615. 1895.
McClatchie, Proc. S. Cal. Acad. **1**: 372. 5 June 1897.
Atk. Bull. Cornell Univ. **3**: 21. 25 June 1897.
Underw. & Earle, Bull. Ala. Exp. Sta. 80: 209. 28 June 1897.
Diet. in Engler & Prantl, Pflanzenfam. **1¹****: 77. 1897.
Snyder, Proc. Ind. Acad. **1896**: 217. 1897.
Tubeuf-Smith, Diseases of Plants 410. 1897.
Orton, Rept. Vt. Exp. Sta. **11**: 210. Sept. 1898 and Contr. Bot. Vt. 2: 12. Sept. 1898.
Hume, Proc. Davenport Acad. **7**: 252. 12 May 1899.

Barthol. Tr. Kans. Acad. **16**: 188. June 1899.
Long, Bull. Torr. Bot. Club **27**: 586. 14 Nov. 1900.
Nelson, Rept. Wyo. Exp. Sta. **10**: (35). 1900.
Earle in Mohr, Contr. U. S. Nat. Herb. **6**: 192. 31 July 1901.
*Barthol., Ell. & Ev. Fung. Columb. *1503*. Dec. 1901.
Patterson, Bull. U. S. Agr. Pl. Industry 8: 8. 3 Feb. 1902.
*Barthol., Ell. & Ev. Fung. Columb. *1602*. Oct. 1902.

Cæoma Euphorbiæ-hypericifoliæ, S.
S. Syn. Am. Bor. 293 no. 2890. *d.* 1834.

Aecidium Euphorbiæ-hypericifoliæ, S.
S. Syn. Am. Bor. 309. 1834.
M. A. Curtis, Bot. N. Car. 123. 1867.
Pk. Rept. N. Y. Mus. **24**: 92, 106. 1872.

Aecidium Cyparissiæ, Auct. Amer.
Arth. Bull. Iowa Agr. Coll. **1884**: 165. Jan. 1885.
Underw. Proc. Ind. Acad. **1896**: 171. 1897.

Aecidium Euphorbiæ-hypericifoliæ, S.
See ***Aecidium Euphorbiæ***, S.

Aecidium Eurotiæ, Ell. & Ev.
Ell. & Ev. Jour. Myc. **6**: 119. *d.* 6 Jan. 1891.
Sacc. Syll. **9**: 319. *d.* 15 Sept. 1891.
*Ell. & Ev. N. A. F. *2709*. May 1892.
*Ell. & Ev. Fung. Columb. *271*. 1894.
Nelson, Rept. Wyo. Exp. Sta. **10**: (35). 1900.

Aecidium Fendleri, Tracy & Earle.

NOTE. Cockerell, 1893, reports *Aecidium Berberidis*, P. on *Berberis Fendleri*.

Tracy & Earle in Greene, Pl. Baker. **1**: 17. *d.* 22 Feb. 1901.
Earle in Greene, Pl. Baker. **2**: 2. 25 March 1901.
Sacc. & Syd. Syll. **16**: 1121. 1 Feb. 1902.

Aecidium filamentosum, (Pk.) n. n.

Peridermium filamentosum, Pk.
Pk. Bot. Gaz. **7**: 56. *d.* May 1882.
De Toni in Sacc. Syll. **7**: 837. *d.* 28 Oct. 1888.
Klebahn, Ber. Bot. Ges. **8**: (69). 29 Dec. 1890.
Tubeuf-Smith, Diseases of Plants 415. 1897.

Aecidium fimbriatum, (Arth.) n. n.

Rœstelia fimbriata, Arth.
Arth. Bull. Torr. Bot. Club **28**: 666. *d.* 30 Dec. 1901.

Aecidium flaviformis, (Atk.) n. n.

NOTE. The name *Rœstelia flaviformis* given below is a misprint for *Rœstelia floriformis*, Thaxter in Herb. Atkinson of which no description has been published. See *Gymnosporangium flaviforme*, Earle.

Rœstelia flaviformis, Atk.
Underw. & Earle, Bull. Ala. Exp. Sta. 80: 218. 28 June 1897.
*Syd. Uredineen *1194*. Feb. 1898.
Earle in Mohr, Contr. U. S. Nat. Herb. **6**: 186. 31 July 1901.

Aecidium fragile, Diet. & Holw.

NOTE. Perhaps the æcidial stage of *Puccinia Oaxacana*, Diet. & Holw. which accompanies it. See also Syd. Mon. Ured. 1: 24. 30 June 1902.

Holw. Bot. Gaz. **31**: 331. 18 May 1901. Mexico.

Aecidium Fraseræ, Trel.
Trel. in Sacc., Pk. & Trel., Harriman Alaska Exp. **5**: 36. 5 April 1904.

Aecidium Fraxini, S.

NOTE. On the basis of cultures, Arthur 1899, 1900 reports this as the æcidial stage of a *Puccinia,* now *Puccinia fraxinata,* (Lk.) Arth. *q. v.*

Muhl. Cat. Pl. Am. Sept. 1 ed. 104. 1813. 2 ed. 107. 1818.
S. Syn. Car. 66 (40) no. 430. *d.* 1822.
Fr. S. M. **3**: 513. 1832.
Pk. Rept. N. Y. Mus. **23**: 59. 1872.
Pk. Rept. N. Y. Mus. **24**: 106. 1872.
B. Grev. **3**: 61 (103). Dec. 1874.
Pk. Rept. N. Y. Mus. **29**: 77. 1878.
*Ell. N. A. F. *222.* 1879.
Trel. Tr. Wis. Acad. **6**: 136 (32). Nov. 1884.
Arth. Bull. Iowa Agr. Coll. **1884**: 166. Jan. 1885.
Bessey, Am. Nat. **19**: 886, 887. Sept. 1885.
Burrill, Bull. Ill. Lab. **2**: 236. *d.* 1885 and Rept. Ill. Ind. Univ. **12**: 148. *d.* 1885.
Bessey, Am. Nat. **20**: 806. Sept. 1886.
Bessey, Am. Pomol. Soc. **1885**: 43. 1886.
Roum. Rev. Myc. **9**: 103. 1 April 1887.
*Roum. Fung. Gall. *4040.* 1887.
Bessey, Am. Nat. **21**: 666. July 1887.
Halsted, Bull. Iowa Agr. Coll. **1886**: 55. 1887.
Kellerm. & Carl. Tr. Kans. Acad. **10**: 91. 1887.
Langlois, Cat. Pl. La. 27. 1887.
De Toni in Sacc. Syll. **7**: 806. *d.* 28 Oct. 1888.
Pound, Am. Nat. **22**: 1117. Dec. 1888.
Farl. Proc. Soc. Prom. Agr. Sci. **1888**: 26. 1888.
Gall. Jour. Myc. **5**: 95. June 1889.
Webber, Bull. Nebr. Exp. Sta. **1**: 331 (61). 18 Dec. 1889.
Pound, Bull. Nebr. Exp. Sta. **1**: 356 (86). Dec. 1889.
Gall. Bull. U. S. Agr. Veg. Pathol. 8: 55. 1889.
Farl. Gard. & For. **3**: 627. 24 Dec. 1890.
Webber, Rept. Nebr. Agr. **1889**: 211 (71). 1890.
Williams, Bull. S. Dak. Exp. Sta. 29: 41. Dec. 1891.
Pammel, Agr. Sci. **7**: 25. Jan. 1893.
*Seymour & Earle, E. F. *209.* 1 Feb. 1893.
Carl. Bot. Gaz. **18**: 451, 454, *pl. 37, f. 5, 6.* 25 Dec. 1893.
*Carl. Ured. Amer. *33.* 1894.
*Ell. & Ev. Fung. Columb. *499.* 1894.
Tracy & Earle, Bull. Miss. Exp. Sta. 34: 89. May 1895.
Diet. in Engler & Prantl, Pflanzenfam. 1^{1**}: 77. 1897.
Tubeuf-Smith, Diseases of Plants 410. 1897.
Orton, Rept. Vt. Exp. Sta. **11**: 211. Sept. 1898 and Contr. Bot. Vt. 2: 13. Sept. 1898.
Barthol. Tr. Kans. Acad. **16**: 188. June 1899.
Arth. Science II. **10**: 565. 20 Oct. 1899.
Jelliffe, Flora of Long Island 36. 1899.
Arth. Bot. Gaz. **29**: 275. 30 April 1900.
Freeman, Minn. Bot. Studies II. 5: 559. 20 July 1901.
Earle in Mohr, Contr. U. S. Nat. Herb. **6**: 192. 31 July 1901.
Holw. Jour. Appl. Micr. **5**: 1655. *f. 1.* Feb. 1902.
Schrenk, Bull. U. S. Agr. Pl. Industry 32: 9. 28 Feb. 1903.

Cæoma fraxinatum, Lk.
Lk., L. Sp. Pl. ed. Willd. 6^2: 62. *d.* 1825.

Uredo Fraxini, Spreng.
Spreng. in L. Syst. Veg. 16 ed. 4^1: 571. *d.* 1827.

Cæoma Fraxinites, S.
S. Syn. Am. Bor. 294 no. 2901. 1834.

Rœstelia Fraxini, M. A. Curtis.
M. A. Curtis, Bot. N. Car. 123. 1867.
Aecidium, sp. Mayr.
Mayr, Waldungen von Nordamer. 139, 434. 1890.

Aecidium Fumariacearum, Kellerm. & Swingle.
See ***Aecidium Corydalis***, (Ell. & Kellerm.) Webber.

Aecidium Galii, P.

NOTE. Compare *Puccinia Galii*, (P.) S. and *Puccinia troglodytes*, Lindr.

Johnson, Bull. Minn. Acad. **1**: 366. 1880.
Arth. Bull. Iowa Agr. Coll. **1884**: 166. Jan. 1885.
Davis, Tr. Wis. Acad. **14**: 87. Sept. 1903.
?Aecidium Galiorum, Langl.
Langlois, Cat. Pl. La. 27. 1887.

Aecidium Gauræ, Ell. & Ev.
Ell. & Ev. Erythea **1**: 205. *d.* 2 Oct. 1893.
Sacc. Syll. **11**: 215. *d.* July 1895.
Pound & Clements, Bot. Surv. Nebr. 5: 24. 30 March 1901.

Aecidium gaurinum, Pk.

NOTE. The teleutosporic stage is *Uromyces gaurinus*, (Pk.) Snyder.

Pk. Bot. Gaz. **4**: 218. *d.* Oct. 1879.
De Toni in Sacc. Syll. **7**: 790. *d.* 28 Oct. 1888.
Kelsey, Jour. Myc. **5**: 80. June 1889.
*Ell. & Ev. N. A. F. *2894.* March 1893.
*Ell. & Ev. Fung. Columb. *872.* April 1896.
*Seymour & Earle, E. F. Suppl. *B 29.* 5 April 1898.
Barthol. Tr. Kans. Acad. **16**: 189. June 1899.
*Griffiths, West Am. Fung. *40.* 22 March 1902.

Aecidium Gayophyti, Vize.

NOTE. Said to belong to *Puccinia Gayophyti*, Billings.

Vize, Grev. **7**: 12. *d.* Sept. 1878.
Hark. & Moore, Cat. Pac. Fung. 27. Feb. 1880.
*Ell. N. A. F. *1426.* 1885.
De Toni in Sacc. Syll. **7**: 791. *d.* 28 Oct. 1888.
Ell. & Varney in Coville, Contr. U. S. Nat. Herb. **4**: 232. 29 Nov. 1893.

Aecidium Geranii, Auct. Amer.
See ***Aecidium Geranii-maculati***, S.

Aecidium Geranii-maculati, S.

NOTE. Under this name Schweinitz in 1822 described an *Aecidium* on *Geranium* which was not recorded again by any other American botanist till 1865. The Schweinitz species had been assumed to be identical with *Aecidium Geranii*, D C. which is said to belong to *Uromyces Geranii*, (D C.) Otth & Wartm. until Lindroth, in 1900, regarding the two as distinct, gave the name of *Aecidium sanguinolentum* to the common North American form. From the description of *Aecidium Geranii-maculati* given by Schweinitz we feel justified in regarding *Aecidium sanguinolentum*, Lindr. as a synonym See also Klebahn, Rostpilze 322. 1904. See also *Aecidium violascens*, Trel. on *Geranium erianthus* in Alaska.

S. Syn. Car. 67 (41) no. 443. *d.* 1822.
Lk., L. Sp. Pl. ed. Willd. 6^2: 57. *d.* 1825.
Uredo hemisphærica, Spreng.
Spreng. in L. Syst. Veg. 16 ed. 4^1: 571. *d.* 1827.
Cæoma geraniatum, S.
S. Syn. Am. Bor. 293 no. 2879. 1834.

Aecidium Geranii, Auct. Amer.
Watt, Can. Nat. & Geol. II. **2**: 390. Oct. 1865.
M. A. Curtis, Bot. N. Car. 124. 1867.
Cke. Proc. Portland Soc. **1**: 180. *d.* 1869.
Cke. Handbook 543. 1871.
Pk. Rept. N. Y. Mus. **23**: 59. 1872.
Pk. Rept. N. Y. Mus. **24**: 107. 1872.
B. Grev. **3**: 60 (102). Dec. 1874.
Frost in Cat. Pl. Amherst 85. 1875.
Farl. Bull. Bussey Inst. **2**: 226. Jan. 1878.
Pk. Rept. N. Y. Mus. **29**: 76. 1878.
*Ell. N. A. F. *221.* 1879.
Johnson, Bull. Minn. Acad. **1**: 366. 1880.
Bundy, Geol. Wis. 1873–79 **1**: 400. 1883.
Trel. Tr. Wis. Acad. **6**: 135 (31). Nov. 1884.
Arth. Bull. Iowa Agr. Coll. **1884**: 166. Jan. 1885.
Burrill, Bull. Ill. Lab. **2**: 224. *d.* 1885 and Rept. Ill. Ind. Univ. **12**: 141. *d.* 1885.
Cobb, List Pl. Amherst 40. 1887.
Bennett, Cat. Pl. R. I. 89. 1888.
Detmers, Bull. Ohio Exp. Sta. 44: 138. Sept. 1892.
Underw. Proc. Ind. Acad. **1893**: 49. Aug. 1894.
Kellerm. & Werner, Geol. Ohio 7^2: 346. Jan. 1895.
*Ell & Ev. Fung. Columb. *762.* 24 April 1895.
Claassen, Rept. Ohio Acad. **5**: 68. 1897.
Snyder, Proc. Ind. Acad. **1896**: 217. 1897.
Barthol. Tr. Kans. Acad. **16**: 189. June 1899.
Snyder, Proc. Ind. Acad. **1898**: 188. Dec. 1899.
Herbst, Fungal Fl. Lehigh Valley 176. *d.* 1899.
Freeman, Minn. Bot. Studies II. 5: 556. 20 July 1901.
Uromyces Geranii, Auct. Amer.
De Toni in Sacc. Syll. **7**: 535. 28 Oct. 1888. I.
Detmers, Bull. Ohio Exp. Sta. tech. ser. **1**: 172. April 1893. [I?]
Orton, Rept. Vt. Exp. Sta. **11**: 218. Sept. 1898 and Contr. Bot. Vt. 2: 20. Sept. 1898. I.
Aecidium sanguinolentum, Lindr.
Lindr. Bot. Notiser **1900**: 241–246. *d.* Dec. 1900 and Bot. Centralbl. **86**: 260. *d.* 15 May 1901.
Sacc. & Syd. Syll. **16**: 331. *d.* 1 Feb. 1902.

Aecidium Gerardiæ, Pk.
Pk. Bull. Buf. Soc. **1**: 68. *d.* July 1873.
Pk. Rept. N. Y. Mus. **25**: 92. *d.* Sept. 1873.
Pk. Rept. N. Y. Mus. **29**: 77. 1878.
*Thm. Myc. Univ. *1225.* 1879.
De Toni in Sacc. Syll. **7**: 813. *d.* 28 Oct. 1888.
*Roum. Fung. Gall. *4618.* 1888.
Roum. Rev. Myc. **10**: 186. 1 Oct. 1888.
*Ell. & Ev. N. A. F. *2710.* May 1892.
Underw. & Earle, Bull. Ala. Exp. Sta. 80: 209. 28 June 1897.
*Seymour & Earle, E. F. Suppl. *B 30.* 5 April 1898.
Earle in Mohr, Contr. U. S. Nat. Herb. **6**: 192. 31 July 1901.
Patterson, Bull. U. S. Agr. Pl. Industry 8: 8. 3 Feb. 1902.

Aecidium Giliæ, Pk.

NOTE. Although *Aecidium Giliæ,* Pk. and *Aecidium Polemonii,* Pk. resemble one another, in the absence of cultures to show their identity, they are here kept distinct. Under the first named species we have placed those

references to *Aecidia* on *Gilia* and *Phlox* which are assumed to belong to *Puccinia plumbaria*, Pk. including the *Aecidium Wilcoxianum* of exsiccati, of which, so far as we know, no description was ever published.

Specimens in different exsiccati of *Aecidium Phlogis* seem to us not to differ from *Aecidium Giliæ*, Pk. *Aecidium Phlogis*, Pk. cited by Arthur, 1885, should probably be in part *Aecidium Polemonii*, Pk. as there is no *Aecidium Phlogis*, Pk. and *Aecidium Phlogis*, Ell. & Ev. dates from 1897. *Aecidium Polemonii* has also been recorded in several cases on *Phlox pilosa*, but the name in this case is doubtful and we are not able to refer the *Aecidium* in question to *Aecidium Giliæ*, Pk. with certainty nor does it seem to be the true *Aecidium Polemonii*, Pk.

The form on *Phlox divaricata* called *Aecidium Polemonii* is probably *Aecidium Giliæ*, Pk.

Pk. Bot. Gaz. **4**: 230. *d.* Nov. 1879.
Thm. Myc. Univ. 2032. 1881. (Note only.)
*Wint. Fung. Eur. *3519*. 1886.
*Roum. Fung. Gall. *3926*. 1887.
Roum. Rev. Myc. **9**: 23. 1 Jan. 1887.
*Ell. & Ev. N. A. F. *1831*. 1887.
De Toni in Sacc. Syll. **7**: 814. *d.* 28 Oct. 1888.
*Ell. & Ev. Fung. Columb. *763*. 24 April 1895.
Tubeuf-Smith, Diseases of Plants 411. 1897.

Aecidium Wilcoxianum, Thm.

*Thm. Myc. Univ. *2226*. 1884.
*Ell. N. A. F. *1432*. 1885.
*Roum. Fung. Gall. *5213*. 1890.
Roum. Rev. Myc. **12**: 62. April 1890.
Sacc. Syll. **11**: 219. July 1895.

Aecidium Phlogis, Arth. p. p.

Arth. Bull. Iowa Agr. Coll. **1884**: 167. Jan. 1885. *Phlox divaricata.*

?Aecidium Polemonii, Auct. Amer. p. p.

Gall. Bull. U. S. Agr. Veg. Pathol. 8: 56. 1889.
Pound & Clements, Bot. Surv Nebr. 5: 24. 30 March 1901.

Aecidium Phlogis, Ell. & Ev.

Ell. & Ev. Bull. Torr. Bot. Club **24**: 284. *d.* 29 June 1897.
*Ell. & Ev. N. A. F. *3582*. 24 Jan. 1898.
Lindau & Syd. Hedw. **37**: xvii. 9 April 1898. [Beiblatt no. 7.]
Sacc. & Syd. Syll. **14**: 383. *d.* 20 Aug. 1899.
Nelson, Rept. Wyo. Exp. Sta. **10**: (36). 1900.
Earle in Greene, Pl. Baker. **2**: 2. 25 March 1901.

Aecidium on **Gillenia**.

Rœstelia lacerata, Wint. & Demet. p. p.

Wint. & Demet. Hedw. **24**: 183 (7). Oct. 1885.
*Wint. Fung. Eur. *3323*. 1885.
Gall. Bull. U. S. Agr. Veg. Pathol. 8: 58. 1889.

Aecidium Glaucis, Dozy & Molkenb.

Note. Said by Plowright, Grev. **21**: 111. June 1893 to belong to *Uromyces lineolatus*, (Desm.) Schrt. In this connection see also Diet. Hedw. **29**: 149. June 1890 and Klebahn, Rostpilze 328. 1904.

Dozy & Molkenb. in Tijdschr. v. Natuur. Geschied. **12**: 16. *pl. 2, f. 1–3*. [1846?] *
Kelsey, Jour. Myc. **5**: 80. June 1889.
Nelson, Rept. Wyo. Exp. Sta. **10**: (35). 1900.

Aecidium globosum, (Farl.) n. n.

NOTE. Under this name are given references believed to relate to the æcidium of *Gymnosporangium globosum,* Farl. which was by early American writers called *Aecidium Cratægi,* var. and by later writers *Rœstelia lacerata.* Plants so designated are not the same as European species with these names. Some of the references below are uncertain but it is not unlikely that a majority of citations of *Rœstelia lacerata* on *Cratægus* relate to this species. Most of the references by Berkeley in Grev. **3**: 59 (101). Dec. 1874 to *Rœstelia lacerata* on *Cratægus* prove to be *Aecidium aurantiacum.* This applies to nos. 180, 182, 243 there cited, but no. 161 on *Cratægus* is *Aecidium globosum.* For account of culture experiments and results see references below, Farlow 1886, Thaxter 1887, 1889, 1891. It should be noted that the true *Aecidium laceratum* has been produced by cultures on *Cratægus* (Farlow 1886 p. 190, 238, Thaxter 1887 p. 266), but aside from this it is not definitely known on this host in America.

Aecidium Cratægi, var. ***Oxyacanthæ,*** S.
S. Syn. Car. 66 (40) no. 432. 1822.
Cæoma cylindrites, S. Syn. Am. Bor.
S. Syn. Am. Bor. 294 no. 2899. 1834.
Rœstelia lacerata, Auct. Amer. p. p.
*Rav. Fung. Car. **5**: *96.* 1860.
M. A. Curtis, Bot. N. Car. 123. 1867. (p. p. ?)
B. Grev. **3**: 59 (101). Dec. 1874. p. p.
Farl. Bull. Bussey Inst. **2**: 225. Jan. 1878.
Farl. Anniv. Mem. Boston Soc. 29. *d.* 1880.
*Rav. Fung. Am. *481.* 1881.
*Ell. N. A. F. *1085.* 1883.
Burrill, Bull. Ill. Lab. **2**: 240. *d.* 1885 and Rept. Ill. Ind. Univ. **12**: 150. *d.* 1885.
Seymour, Tr. Am. Hort. Soc. **4**: 155 (4). 7 April 1887.
Brendel, Fl. Peoriana 2 ed. 69. 1887.
*Underw. & Cook, Illustr. Fungi *54.* Sept. 1889.
Seymour, Proc. Boston Soc. **24**: 190. 8 Nov. 1889.
*Syd. Uredineen *296.* May 1890.
*Shear, N. Y. Fungi *79.* 1893.
Ricker, Univ. of Maine Studies 3: 54. 30 April 1902.
Rœstelia lacerata *y*, *z*, Thax.
Farl. Bot. Gaz. **11**: 240. Sept. 1886.
Thax. Proc. Am. Acad. **22**: 263, 266, 267. Jan. 1887 and Centralbl. Bact. **1**: 432, 457, 458. 1887.
Thax. Bot. Gaz. **14**: 165, 167, 168, 171. July 1889.
Thax. Bull. Conn. Exp. Sta. 107: 4. 15 April 1891.
?Rœstelia lacerata, Auct. Amer. p. p.
Cke. Handbook, 534. 1871.
Frost in Cat. Pl. Amherst 84. 1875.
Pk. Rept. N. Y. Mus. **29**: 76. 1878.
Trel. Tr. Wis. Acad. **6**: 138 (34). Nov. 1884.
Arth. Bull. Iowa Agr. Coll. **1884**: 168. Jan. 1885.
Ell. & Ev. Jour. Myc. **1**: 86. July 1885.
Wint. & Demet. Hedw. **24**: 183 (7). Oct. 1885.
Bessey, Am. Pomol. Soc. **1885**: 43. 1886.
Cobb, List Pl. Amherst 39. 1887.
Pound, Bull. Nebr. Exp. Sta. **1**: 356 (86). 18 Dec. 1889.
Gall. Bull. U. S. Agr. Veg. Pathol. 8: 58. 1889.
Small & Vail, Mem. Torr. Bot. Club **4**: 200. April 1894.
Underw. Proc. Ind. Acad. **1893**: 56. Aug. 1894.
Tracy & Earle, Bull. Miss. Exp. Sta. 34: 91. May 1895.

Underw. Proc. Ind. Acad. **1894**: 153. June 1897.
Snyder, Proc. Ind. Acad. **1896**: 222. 1897.
Barthol. Tr. Kans. Acad. **16**: 192. June 1899.
Snyder, Proc. Ind. Acad. **1898**: 188. Dec. 1899.
Herbst, Fungal Fl. Lehigh Valley 174. 1899.
Rœstelia globosa, Shear.
*Shear, N. Y. Fungi 79. 1893. [Corrected label.]
Fischer, Hedw. **34**: 4. *f.* 6. Jan. 1895.
Seymour & Patterson in Deane's Flora of Reservations 138. 1896.
Stevens, Rept. Ohio Acad. **4**: 20. 1896.

NOTE. The following references also probably relate to the present plant, but it may be stated that one herbarium specimen examined bears undoubted æcidium of *Gymnosporangium macropus*. Compare also note and references to Peck's Reports, 1872, 1878 under *Aecidium cornutum*.

Rœstelia cornuta, Auct. Amer. p. p.
Pk. Rept. N. Y. Mus. **24**: 93. 1872.
Frost in Cat. Pl. Amherst 84. 1875.
Farl. Anniv. Mem. Boston Soc. 28. 1880.
Seymour, Tr. Am. Hort. Soc. **4**: 155 (4). 7 April 1887.
Cobb, List Pl. Amherst 39. 1887.
Rœstelia penicillata, Auct. Amer. p. p.
Jones, Oberlin College Lab. Bull. **9**: 7. 15 June 1898.
Rœstelia pirata, Auct. Amer. p. p.
Barthol. Tr. Kans. Acad. **16**: 192. June 1899.

Aecidium gnaphaliatum, S.

NOTE. Possibly a stage of *Puccinia investita*, S.

S. Syn. Am. Bor. 309. 1834.
Pk. Rept. N. Y. Mus. **22**: 93. 1869.
Pk. Rept. N. Y. Mus. **24**: 106. 1872.
B. Grev. **3**: 60 (102). Dec. 1874.
Pk. Rept. N. Y. Mus. **29**: 77. 1878.
De Toni in Sacc. Syll. **7**: 804. *d.* 28 Oct. 1888.
McClatchie, Proc. S. Cal. Acad. **1**: 372. 5 June 1897.
Underw. & Earle, Bull. Ala. Exp. Sta. 80: 209. 28 June 1897.
*Ell. & Ev. N. A. F. *3569*. 24 Jan. 1898.
*Ell. & Ev. Fung. Columb. *1285*. May 1898.
Orton, Rept. Vt. Exp. Sta. **11**: 211. Sept. 1898 and Contr. Bot. Vt. 2: 13. Sept. 1898.
Earle in Mohr, Contr. U. S. Nat. Herb. **6**: 192. 31 July 1901.
Cæoma gnaphaliatum, S.
S. Syn. Am. Bor. 292 no. 2873. *d.* 1834.
Wint. Hedw. **24**: 255. Dec. 1885.

Aecidium Gossypii, Ell. & Ev.
Ell. & Ev. Erythea **5**: 6. *d.* 31 Jan. 1897.
Lindau & Syd. Hedw. **37**: xvii. 9 April 1898. [Beiblatt no. 7.]
Sacc. & Syd. Syll. **14**: 371. *d.* 20 Aug. 1899.
Earle, Bull. Ala. Exp. Sta. 107: 317. April 1900.

Aecidium gracilens, Pk.
Pk. Bot. Gaz. **4**: 128. *d.* Feb. 1879.
De Toni in Sacc. Syll. **7**: 792. *d.* 28 Oct. 1888.

Aecidium Graebnerianum, Henn.

NOTE. See also *Aecidium Orchidearum*, Desm.

Henn. Hedw. **37**: 273. *d.* 31 Dec. 1898.
Sacc. & Syd. Syll. **16**: 347. d. 1 Feb. 1902.
*Syd. Uredineen *1799*. 1903.

Aecidium Grindeliæ, Syd.
Syd. Hedw. Beibl. **40**: (1). *d.* 21 Feb. 1901.
Sacc. & Syd. Syll. **16**: 1122. 1 Feb. 1902.
Syd. Ann. Myc. **1**: 20. 30 Jan. 1903.
Kellerm. Jour. Myc. **9**: 117 (142). 29 May 1903.
Aecidium Grindeliæ, Griffiths.
*Griffiths, West Am. Fung. *388*. 21 May 1902.
Griffiths, Bull. Torr. Bot. Club **29**: 299. *d. f. 10*. 26 May 1902.
*Barthol., Ell. & Ev. Fung. Columb. *1705*. Feb. 1903.
Garrett, Tr. Kans. Acad. **18**: 147. 1903.

Aecidium Grossulariæ, (P. in Gmel.) Schum.

NOTE. Under the name *Aecidium Grossulariæ*, American writers include a number of æcidial forms, none of which can be connected with *Puccinia Ribis*, which is a *Micropuccinia*. See Eriksson, Rev. Gen. de Bot. **10**: 506. 15 Dec. 1898. The European *Aecidium Grossulariæ*, (P.) Schum. has been shown to belong to *Pucciniæ* on *Carex*, of which Klebahn has described several form-species. See Klebahn, Zeit. Pflanzenkr. **12**: 144. 15 July 1902 and Pringsheim, Jahrb. **34**: 388. 1902. See also Syd. Mon. Ured. **1**: 652. 1 Nov. 1903 and Klebahn, Rostpilze 295 *et seq.* 1904. See also note under *Aecidium albiperidium*, Arth.

Probably the references given below relate to *Aecidia* of heterœcious *Pucciniæ*, but whether the same as the European species is not known. We have arranged the citations by hosts, beginning with those in which several hosts are given. It should be said that only on *Ribes prostratum* have been frequently recorded both *Aecidium Grossulariæ* and *Puccinia Ribis* or *Puccinia pulchella*, Pk., said to be the same.

On ***Ribes***, sp. plur.
Trel. Tr. Wis. Acad. **6**: 135 (31). Nov. 1884.
Arth. Bull. Iowa Agr. Coll. **1884**: 166. Jan. 1885.
Burrill, Bull. Ill. Lab. **2**: 227. *d.* 1885 and Rept. Ill. Ind. Univ. **12**: 142. *d.* 1885.
De Toni in Sacc. Syll. **7**: 792. *d.* 28 Oct. 1888.
Williams, Bull. S. Dak. Exp. Sta. 29: 41. Dec. 1891.
Pammel, Jour. Myc. **7**: 101. April 1892.
Pammel, Agr. Sci. **7**: 25. Jan. 1893.
Underw. Proc. Ind. Acad. **1893**: 50. Aug. 1894.
Pammel, Tr. Iowa Hort. Soc. **28**: 473. 1894.
Pammel, Proc. Iowa Acad. **1894**: 206. 1895.
Pammel & Carver, Proc. Iowa Acad. **3**: 143. 1896.
Tubeuf-Smith, Diseases of Plants 409. 1897.
Orton, Rept. Vt. Exp. Sta. **11**: 211. Sept. 1898 and Contr. Bot. Vt. 2: 13. Sept. 1898.
Barthol. Tr. Kans. Acad. **16**: 189. June 1899.
Freeman, Minn. Bot. Studies II. 5: 558. 20 July 1901.
Ricker, Univ. of Maine Studies 3: 51. 30 April 1902.

On ***Ribes aureum***, Pursh.
*Kellerm. & Swingle, Kansas Fungi *27*. 1 Aug. 1889.

On ***Ribes Cynosbati***, L.
Pk. Rept. N. Y. Mus. **22**: 93. 1869.
B. Grev. **3**: 61 (103). Dec. 1874.
Detmers, Bull. Ohio Exp. Sta. 44: 138. Sept. 1892.
Detmers, Bull. Ohio Exp. Sta. tech. ser. **1**: 178. April 1893.
*Shear, N. Y. Fungi *132*. 1893.
*Seymour & Earle, E. F. *435*. 1 July 1895.
Claassen, Rept. Ohio Acad. **5**: 68. 1897.
Snyder, Proc. Ind. Acad. **1898**: 188. Dec. 1899.
*Kellerm. Ohio Fungi *81. d.* Oct. 1902.

Kellerm. Jour. Myc. **8**: 120. *d.* 14 Oct. 1902.
*Kellerm. Ohio Fungi *121.* 28 May 1903.
Kellerm. Jour. Myc. **9**: 111. 29 May 1903.

On ***Ribes floridum***, L'Her.

Kelsey, Jour. Myc. **5**: 80. June 1889.
*Seymour & Earle, E. F. *207.* 1 Feb. 1893.
Underw. Proc. Ind. Acad. **1894**: 154. Oct. 1895.

On ***Ribes gracile***, Michx.

Davis, Tr. Wis. Acad. **14**: 87. Sept. 1903.

On ***Ribes Grossularia, L.***

Sturgis, Rept. Conn. Exp. Sta. **24**: 270. 1901.
Tracy & Earle, Bull. Miss. Exp. Sta. 34: 90. May 1895.

On ***Ribes lacustre***, Poir.

Halsted, Bull. Iowa Agr. Coll. **1886**: 58. 1887.
*Ell. & Ev. Fung. Columb. *357.* 1894.

On ***Ribes oxyacanthoides***, L.

Davis, Tr. Wis. Acad. **9**: 161. 21 Aug. 1893.

On ***Ribes prostratum***, L'Her.

*Ell. N. A. F. *1006.* 1883.
Farl. Appalachia **3**: 239. Jan. 1884.

On ***Ribes rotundifolium***, Michx.

Kellerm. Bull. Wash. Lab. **1**: 75. Jan. 1885 and Tr. Kans. Acad. **9**: 81. 1885.
Kellerm. & Carl. Tr. Kans. Acad. **10**: 91. 1887.
*Roum. Fung. Gall. *4414.* 1888.
Roum. Rev. Myc. **10**: 86. 1 April 1888.
Webber, Bull. Nebr. Exp. Sta. **1**: 332 (62). 18 Dec. 1889.
Gall. Bull. U. S. Agr. Veg. Pathol. 8: 55. 1889.
Webber, Rept. Nebr. Agr. **1889**: 211 (71). 1890.

On ***Ribes***, sp. cult.

Bessey, Am. Pomol. Soc. **1885**: 43. 1886.
Pound, Bull. Nebr. Exp. Sta. **1**: 356 (86). 18 Dec. 1889.
Stone, Rept. Mass. Agr. Coll. **32**: 148 (12). 1895.

On ***Ribes***, sp. indet.

M. A. Curtis, Bot. N. Car. 123. 1867.
Frost in Cat. Pl. Amherst 85. 1875.
Cke. Grev. **5**: 151. June 1877.
Johnson, Bull. Minn. Acad. **1**: 365. 1880.
Cragin, Bull. Wash. Lab. **1**: 68. Jan. 1885.
Cobb, List. Pl. Amherst 40. 1887.
*Underw. & Cook, Illustr. Fungi 52. Sept. 1889.
Kellerm. & Werner, Geol. Ohio **7**^{2}: 346. Jan. 1895.
Hume, Proc. Davenport Acad. **7**: 252. 12 May 1899.
Herbst, Fungal Fl. Lehigh Valley 175. *d.* 1899.
Nelson, Rept. Wyo. Exp. Sta. **10**: (35). 1900.
Garrett, Tr. Kans. Acad. **18**: 147. 1903.
Trel. in Sacc., Pk. & Trel., Harriman Alaska Exp. **5**: 36. 5 April 1904.

Host not stated.

Watt, Can. Nat. & Geol. II. **2**: 390. Oct. 1865.
Edwards, Bull. Torr. Bot. Club **2**: 39. Oct. 1871.
Cke. Handbook 541. *d.* 1871.
Pk. Rept. N. Y. Mus. **24**: 107. 1872.
Bundy, Geol. Wis. 1873–79 **1**: 400. 1883.
Ell. & Ev. Jour. Myc. **1**: 86. July 1885.
Brendel, Fl. Peoriana 2 ed. 69. 1887.
Bennett, Cat. Pl. R. I. 89. 1888.

Williams, Am. Nat. **24**: 780. Aug. 1890.
Humphrey, Rept. Mass. Exp. Sta. **10**: 241 (33). 1893.
Cheney, Tr. Wis. Acad. **10**: 69. Oct. 1895.
Aecidium Rumicis, S. Car. p. p.
S. Syn. Car. 66 (40) no. 433. 1822.
Cæoma grossulariatum, Lk.
S. Syn. Am. Bor. 293 no. 2882. 1834.

Aecidium Guadalajaræ, Syd.
Syd. Oest. Bot. Zeit. **52**: 183. *d.* May 1902. Mexico.

Aecidium Hamiltoniæ, Thm.
See ***Aecidium pustulatum***, M. A. Curtis.

Aecidium Harknessianum, (Ell. & Ev.) n. n.

NOTE. Arthur, 1901, suggests that this may belong to *Gymnosporangium speciosum*, Pk.

Rœstelia Harknessiana, Ell. & Ev.
*Ell. & Ev. N. A. F. *2714*. May 1892.
*Ell. & Ev. Fung. Columb. *1293*. May 1898.
Arth. Proc. Ind. Acad. **1900**: 136. June 1901.
?Ricker Jour. Myc. **8**: 127. 14 Oct. 1902.

Aecidium Harknessii, (Moore) Diet.
Diet. in Engler & Prantl, Pflanzenfam. 1^{1**}: 79. 1897.
Peridermium Harknessii, Moore.
Hark. & Moore, Cat. Pac. Fung. 27. Feb. 1880.
Thm. Mittheil. forstl. Versuchs Oest. **2**: 313 (17). 1880.
Hark. Bull. Cal. Acad. **1**: 37 (17). *d.* Feb. 1884.
De Toni in Sacc. Syll. **7**: 838. *d.* 28 Oct. 1888.
Klebahn, Ber. Deutsch. Bot. Ges. **8**: (69). 29 Dec. 1890.
Blasdale, Asa Gray Bulletin $\mathbf{1893}^{3}$: 2. 1893.
Tubeuf-Smith, Diseases of Plants 415. 1897.
Massee, Textbk. Pl. Diseases 264. *f. 68*. 1899.

Aecidium helianthatum, S.
See ***Aecidium Helianthi-mollis***, S.

Aecidium Helianthellæ, Arth.

NOTE. In Bull. Torr. Bot. Club **31**: 5. 19 Jan. 1904 Arthur describes *Puccinia Helianthellæ* suggesting that this *Aecidium* may belong to it.

Arth. in Earle, Bull. N. Y. Bot. Gard. **2**: 348. *d.* 25 April 1902.

Aecidium Helianthi, Pk.
See ***Aecidium Compositarum***, var. ***Helianthi***, Burrill.

Aecidium Helianthi-mollis, S.

NOTE. For account of cultures showing relationship to teleutosporic stage see Arth. Bot. Gaz. **35**: 17. 20 Jan. 1903, Arth. Jour. Myc. **10**: 12, 20. 30 Jan. 1904 and Kellerm. Jour. Myc. **9**: 230–232. 31 Dec. 1903.

S. Syn. Car. 68 (42) no. 450. *d.* 1822.
Lk., L. Sp. Pl. ed. Willd. $\mathbf{6}^{2}$: 52. *d.* 1825.
Hitchcock, Cat. Pl. Amherst 59. 1829.
Hitchcock, Cat. Pl. Mass. 644. 1833. 2 ed. 645 (125). 1835.
M. A. Curtis, Bot. N. Car. 124. 1867.
Cæoma asteratum, Lk. p. p.
Lk., L. Sp. Pl. ed. Willd. $\mathbf{6}^{2}$: 51. *d.* 1825.
Uredo Asterum, Spreng. p. p.
Spreng. in L. Syst. Veg. 16 ed. $\mathbf{4}^{1}$: 572. *d.* 1827.
Cæoma helianthatum, S.
S. Syn. Am. Bor. 292 no. 2871. 1834.

***Aecidium helianthatum*, S.**
S. Syn. Am. Bor. 309. 1834.
Kellerm. & Carl. Tr. Kans. Acad. **10**: 91. 1887.

Aecidium Heliotropii, Tracy & Gall.
See ***Aecidium biforme***, Pk.

Aecidium hemisphæricum, Pk.

NOTE. This is understood to be the æcidial stage of *Puccinia hemisphærica*, (Pk.) Ell. & Ev.

Pk. Bot. Gaz. **3**: 34. *d.* April 1878.
Wint. Hedw. **22**: 68 (2). May 1883.
De Toni in Sacc. Syll. **7**: 805. *d.* 28 Oct. 1888.
Kelsey, Jour. Myc. **5**: 80. June 1889.
*Ell. & Ev. N. A. F. *2221.* 1889.
Webber, Am. Nat. **24**: 179. Feb. 1890.
*Ell. & Ev. N. A. F. *2993.* Oct. 1893.
Tracy & Earle in Greene, Pl. Baker. **1**: 18. 22 Feb. 1901.
Earle in Greene, Pl. Baker. **2**: 2. 25 March 1901.
Lindr. Acta Soc. Fauna et Fl. Fennica **20**[9]: 10. 1901.

Aecidium hepaticatum, S.
See ***Aecidium punctatum***, P.

Aecidium Hibisci, M. A. Curtis.
See ***Aecidium hibisciatum***, S.

Aecidium hibisciatum, S.

NOTE. Kellerman in Jour. Myc. **9**: 109. 29 May 1903, and Jour. Myc. **9**: 232. 31 Dec. 1903 gives account of cultures by which he produced this *Aecidium* from teleutospores of *Puccinia Muhlenbergiæ*, Arth. See *Puccinia hibisciata*, (S.) Kellerm. See also Syd. Mon. Ured. **1**: 765. 1 Nov. 1903.

S. Syn. Am. Bor. 309. 1834.
B. Grev. **3**: 61 (103). Dec. 1874.
Wint. & Demet. Hedw. **24**: 180 (4). Oct. 1885.
Burrill, Bull. Ill. Lab. **2**: 224. *d.* 1885 and Rept. Ill. Ind. Univ. **12**: 141. *d.* 1885.
Ludwig, Centralbl. Bact. **1**: 692. June 1887.
*Ell. & Ev. N. A. F. *1830.* 1887.
De Toni in Sacc. Syll. **7**: 781. *d.* 28 Oct. 1888.
Webber, Bull. Nebr. Exp. Sta. **1**: 332 (62). 18 Dec. 1889.
Gall. Bull. U. S. Agr. Veg. Pathol. 8: 55. 1889.
Webber, Rept. Nebr. Agr. **1889**: 211 (71). 1890.
Lagerh. Tromsœ Mus. Aarshefter **17**: 102. *d.* 1895.
Underw. & Earle, Bull. Ala. Exp. Sta. 80: 209. 28 June 1897.
*Ell. & Ev. Fung. Columb. *1297.* May 1898.
Earle in Mohr. Contr. U. S. Nat. Herb. **6**: 192. 31 July 1901.
*Kellerm. Ohio Fungi *82. d.* Oct. 1902.
Kellerm. Jour. Myc. **8**: 120. *d.* 14 Dec. 1902.
Kellerm. Jour. Myc. **9**: 109. 29 May 1903.
Kellerm. Jour. Myc. **9**: 170. 29 Oct. 1903.
Kellerm. Jour. Myc. **9**: 232, 238. 31 Dec. 1903.

***Cæoma hibisciatum*, S.**
S. Syn. Am. Bor. 293 no. 2877. *d.* 1834.

***Aecidium Hibisci*, M. A. Curtis.**
M. A. Curtis, Bot. N. Car. 123. 1867.

Aecidium hieraciatum, S.
S. Syn. Am. Bor. 309. 1834.

***Cæoma hieraciatum*, S.**
S. Syn. Am. Bor. 292 no. 2868. *d.* 1834.

?Aecidium Compositarum, Auct. Amer. p. p.
Freeman, Minn. Bot. Studies II. 5 : 556. 20 July 1901.

Aecidium Holbœllii, Hornem.
See ***Puccinia Holbœllii,*** Rostr.

Aecidium Holwayi, (Syd.) n. n.
?Peridermium, sp. indet. On ***Pseudotsuga.***
Halsted, Bull. Iowa Agr. Coll. **1886 :** 59. 1887.
Peridermium Holwayi, Syd.
Syd. Ann. Myc. **1:** 19. *d.* Jan. 1903.

Aecidium houstoniatum, S.
S. Syn. Am. Bor. 309. 1834.
Pk. Rept. N. Y. Mus. **22 :** 93. 1869.
Pk. Rept. N. Y. Mus. **24 :** 106. 1872.
Pk. Rept. N. Y. Mus. **25 :** 109. Sept. 1873.
Frost in Cat. Pl. Amherst 85. 1875.
Pk. Rept. N. Y. Mus. **29 :** 77. 1878.
Burrill, Bull. Ill. Lab. **2 :** 229. *d.* 1885 and Rept. Ill. Ind. Univ. **12 :** 143. *d.* 1885.
*Ell. N. A. F. *1422.* 1885.
Cobb, List. Pl. Amherst 40. 1887.
De Toni in Sacc. Syll. **7 :** 795. *d.* 28 Oct. 1888.
Gall. Bull. U. S. Agr. Veg. Pathol. 8 : 55. 1889.
Jennings, Bull. Tex. Exp. Sta. 9 : 23. May 1890.
Millsp. Bull. W. Va. Exp. Sta. 24 : 508. June 1892.
Detmers, Bull. Ohio Exp. Sta. 44 : 139. Sept. 1892.
*Pazschke, Fung. Eur. *3936.* Feb. 1894.
*Ell. & Ev. Fung. Columb. *497.* 1894.
Kellerm. & Werner, Geol. Ohio **7**[2] : 346. Jan. 1895.
Millsp. & Nutt. Publ. Field Columb. Mus. Bot. **1 :** 130. Jan. 1896.
*Ell. & Ev. Fung. Columb. *1078.* 22 Dec. 1896.
Atk. Bull. Cornell Univ. **3 :** 21. 25 June 1897.
Orton, Rept. Vt. Exp. Sta. **11 :** 211. Sept. 1898 and Contr. Bot. Vt. 2 : 13. Sept. 1898.
Barthol. Tr. Kans. Acad. **16 :** 189. June 1899.
Pk. Rept. N. Y. Mus. **52 :** 665. Dec. 1899. [Bull. **5 :** no. 25.].
Earle in Mohr, Contr. U. S. Nat. Herb. **6 :** 193. 31 July 1901.
Patterson, Bull. U. S. Agr. Pl. Industry 8 : 8. 3 Feb. 1902.
Cæoma houstoniatum, S.
S. Syn. Am. Bor. 293 no. 2891. *d.* 1834.
Aecidium oldenlandianum, Underw. & Earle non Ell. & Tracy.
Underw. & Earle, Bull. Ala. Exp. Sta. 80 : 209. 28 June 1897.

Aecidium hyalinum, (Cke.) n. n.
Rœstelia hyalina, Cke.
Cke. Bull. Soc. Bot. Fr. **24 :** 315. *d.* 22 Oct. 1877.
Cke. Hedw. **17 :** 38. *d.* March 1878.
Cke. Grev. **6 :** 137. *pl. 101, f. 15.* June 1878 and Grev. **7 :** 96. March 1879.
*Rav. Fung. Am. *37.* 1878.
Farl. Anniv. Mem. Boston Soc. 31. *d.* 1880.
Seymour, Tr. Am. Hort. Soc. **4 :** 155 (4). 7 April 1887.
Farl. Suppl. List Works on N. Am. Fungi p. 6 no. 687. 1888.
De Toni in Sacc. Syll. **7 :** 834. *d.* 28 Oct. 1888.

Aecidium hydnoideum, B. & C.

Note. In Jour. Myc. **10 :** 19, 20. 30 Jan. 1904 Arthur gives an account of cultures of this *Aecidium* producing teleutospores on *Bromus ciliatus.* See *Puccinia hydnoidea,* (B. & C.) Arth.

*Rav. Fung. Car. **4**: *94.* 1855.
Pk. Rept. N. Y. Mus. **22**: 93. 1869.
Pk. Rept. N. Y. Mus. **24**: 106. 1872.
B. Grev. **3**: 61 (103) no. 582. *d.* Dec. 1874.
Frost in Cat. Pl. Amherst 84. 1875.
Pk. Rept. N. Y. Mus. **29**: 77. 1878.
*Thm. Myc. Univ. *1120.* 1878.
*Wint. Fung. Eur. *3017.* 1884.
Arth. Bull. Iowa Agr. Coll. **1884**: 166. Jan. 1885.
Wint. & Demet. Hedw. **24**: 180 (4). Oct. 1885.
*Roum. Fung. Gall. *3862.* 1886.
Roum. Rev. Myc. **8**: 196. 1 Oct. 1886.
*Ell. & Ev. N. A. F. *1816.* 1887.
Cobb, List. Pl. Amherst 40. 1887.
De Toni in Sacc. Syll. **7**: 790. *d.* 28 Oct. 1888.
Gall. Bull. U. S. Agr. Veg. Pathol. 8: 55. 1889.
Detmers, Bull. Ohio Exp. Sta. 44: 139. Sept. 1892.
Davis, Tr. Wis. Acad. **9**: 182. 21 Aug. 1893.
Underw. Proc. Ind. Acad. **1893**: 50. Aug. 1894.
Kellerm. & Werner, Geol. Ohio **7**[2]: 346. Jan. 1895.
Lagerh. Tromsœ Mus. Aarshefter **17**: 102. *d.* 1895.
Underw. & Earle, Bull. Ala. Exp. Sta. 80: 209. 28 June 1897.
Freeman, Minn. Bot. Studies II. 5: 558. 20 July 1901.
Earle in Mohr, Contr. U. S. Nat. Herb. **6**: 193. 31 July 1901.
Patterson, Bull. U. S. Agr. Pl. Industry 8: 8. 3 Feb. 1902.
Ricker, Univ. of Maine Studies 3: 51. 30 April 1902.

Aecidium Hydrophylli, Pk.
Pk. Bull. Buf. Soc. **1**: 68. *d.* July 1873.
Pk. Rept. N. Y. Mus. **26**: 78. *d.* April 1874.
Pk. Rept. N. Y. Mus. **29**: 77. 1878.
Arth. Bull. Iowa Agr. Coll. **1884**: 166. Jan. 1885.
Burrill, Bull. Ill. Lab. **2**: 234. *d.* 1885 and Rept. Ill. Ind. Univ. **12**: 147. *d.* 1885.
De Toni in Sacc. Syll. **7**: 810. *d.* 28 Oct. 1888.
Webber, Bull. Nebr. Exp. Sta. **1**: 332 (62). 18 Dec. 1889.
Webber, Rept. Nebr. Agr. **1889**: 211 (71). 1890.
Ell. & James in Holzinger, Contr. U. S. Nat. Herb. **3**: 276. 23 Nov. 1895.
Nelson, Rept. Wyo. Exp. Sta. **10**: (35). 1900.
Tracy & Earle in Greene, Pl. Baker. **1**: 18. 22 Feb. 1901.
Earle in Greene, Pl. Baker. **2**: 2. 25 March 1901.
*Syd. Uredineen *1544.* April 1901.
Freeman, Minn. Bot. Studies II. 5: 559. 20 July 1901.
Blasdale in Davy, Bull. U. S. Agr. Pl. Industry 12: 75. 1902.
Cockerell, Jour. Myc. **10**: 51. 19 March 1904.

Aecidium hypericatum, S.
See ***Aecidium Hyperici-frondosi,*** S.

Aecidium Hyperici-frondosi, S.
NOTE. The teleutosporic stage is *Uromyces Hyperici-frondosi,* (S.) Arth.
S. Syn. Car. 68 (42) no. 451. *d.* 1822.
M. A. Curtis, Bot. N. Car. 124. 1867.
*Ell. & Ev. N. A. F. *2209.* Feb. 1889.
Garrett, Tr. Kans. Acad. **18**: 150. 1903.
Cæoma hypericatum, Lk.
Lk., L. Sp. Pl. ed. Willd. **6**[2]: 58. *d.* 1825.
S. Syn. Am. Bor. 293 no. 2883. 1834.

Uredo Hyperici, Spreng.
Spreng. in L. Syst. Veg. 16 ed. **4**[1] **:** 572. *d.* 1827.
Aecidium hypericatum, S.
S. Syn. Am. Bor. 309. 1834.
Watt, Can. Nat. & Geol. II. **2 :** 390. Oct. 1865.
Cke. Proc. Portland Soc. **1 :** 181. *d.* 1869.
Pk. Rept. N. Y. Mus. **25 :** 92. Sept. 1873.
Pk. Rept. N. Y. Mus. **29 :** 76. 1878.
Arth. Bull. Iowa Agr. Coll. **1884 :** 166. Jan. 1885.
De Toni in Sacc. Syll. **7 :** 781. *d.* 28 Oct. 1888.
*Ell. & Ev. N. A. F. *2994.* Oct. 1893.
Tracy & Earle, Bull. Miss. Exp. Sta. 34 : 90. May 1895.
Patterson, Bull. U. S. Agr. Pl. Industry 8 : 8. 3 Feb. 1902.
Ricker, Univ. of Maine Studies 3 : 51. 30 April 1902.
Aecidium oblongum, Bon.
Bon. Abh. Nat. Ges. Halle **5 :** 212 (46). *d.* 1860.
Aecidium minutissimum, Gerard.
Gerard, Bull. Torr. Bot. Club **5 :** 40. *d.* Sept. 1874 and Hedw. **13 :** 173. *d.* Nov. 1874.
Aecidium Hypericorum, B. & C.
B. Grev. **3 :** 61 (103) no. 581. *d.* Dec. 1874.
De Toni in Sacc. Syll. **7 :** 781. *d.* 28 Oct. 1888.
Underw. & Earle, Bull. Ala. Exp. Sta. 80 : 209. 28 June 1897.
Earle in Mohr, Contr. U. S. Nat. Herb. **6 :** 193. 31 July 1901.

Aecidium Hypericorum, B. & C.
See ***Aecidium Hyperici-frondosi,*** S.

Aecidium ilicinum, Ell. & Ev.
Ell. & Ev. Bull. Torr. Bot. Club **24 :** 284. *d.* 29 June 1897.
Lindau & Syd. Hedw. **37 :** xvii. 9 April 1898. [Beiblatt no. 7.]
Sacc. & Syd. Syll. **14 :** 373. *d.* 20 Aug. 1899.

Aecidium impatientatum, S.
See ***Aecidium Impatientis,*** S.

Aecidium Impatientis, S.

NOTE. As the result of cultures Arthur in Bot. Gaz. **35 :** 18. 20 Jan. 1903, states this to be the æcidial stage of *Puccinia Impatientis,* (S.) Arth. See also Klebahn, Rostpilze 292. 1904 and Arth. Jour. Myc. **10 : 11,** 20. 30 Jan. 1904.

S. Syn. Car. 67 (41) no. 442. *d.* 1822.
Lk., L. Sp. Pl. ed. Willd. **6**[2] **:** 57. *d.* 1825.
M. A. Curtis, Bot. N. Car. 124. 1867.
Pk. Rept. N. Y. Mus. **23 :** 59. 1872.
Pk. Rept. N. Y. Mus. **24 :** 107. 1872.
*Thm. Myc. Univ. *1121.* 1878.
Wint. & Demet. Hedw. **24 :** 180 (4). Oct. 1885.
*Wint. Fung. Eur. *3318.* 1885.
Burrill, Bull. Ill. Lab. **2 :** 224. *d.* 1885 and Rept. Ill. Ind. Univ. **12 :** 141. *d.* 1885.
Roum. Rev. Myc. **8 :** 197. 1 Oct. 1886.
*Roum. Fung. Gall. *3867.* 1886.
De Toni in Sacc. Syll. **7 :** 784. *d.* 28 Oct. 1888.
Webber, Bull. Nebr. Exp. Sta. **1 :** 332 (62). 18 Dec. 1889.
Gall. Bull. U. S. Agr. Veg. Pathol. 8 : 55. 1889.
Webber, Rept. Nebr. Agr. **1889 :** 211 (71). 1890.
Detmers, Bull. Ohio Exp. Sta. 44 : 139. Sept. 1892.
Detmers, Bull. Ohio Exp. Sta. tech. ser. **1 :** 178. April 1893.
*Ell. & Ev. Fung. Columb. *196.* 1893.

Underw. Proc. Ind. Acad. **1893**: 50. Aug. 1894.
Kellerm. & Werner, Geol. Ohio 7^2: 346. Jan. 1895.
Millsp. & Nutt. Publ. Field Columb. Mus. Bot. Ser. **1**: 130. Jan. 1896.
*Shear, N. Y. Fungi *323*. March 1896.
Stevens, Rept. Ohio Acad. **4**: 20. 1896.
Atk. Bull. Cornell Univ. **3**: 21. 25 June 1897.
Underw. & Earle, Bull. Ala. Exp. Sta. 80: 209. 28 June 1897.
Claassen, Rept. Ohio Acad. **5**: 68. 1897.
Snyder, Proc. Ind. Acad. **1896**: 217. 1897.
Orton, Rept. Vt. Exp. Sta. **11**: 211. Sept. 1898 and Contr. Bot. Vt. 2: 13. Sept. 1898.
Barthol. Tr. Kans. Acad. **16**: 189. June 1899.
*Syd. Uredineen *1346*. 1899.
Freeman, Minn. Bot. Studies II. 5: 556. 20 July 1901.
Earle in Mohr, Contr. U. S. Nat. Herb. **6**: 193. 31 July 1901.
Kellerm. Ohio Nat. **2**: 136. *d.* Nov. 1901.
*Kellerm. Ohio Fungi *1*. d. Dec. 1901.
Patterson, Bull. U. S. Agr. Pl. Industry 8: 8. 3 Feb. 1902.
*Griffiths, West Am. Fung. *299*. 22 March 1902.
Arth. Bot. Gaz. **35**: 18. 20 Jan. 1903.
Syd. Mon. Ured. **1**: 751. 1 Nov. 1903.

Uredo Schweinitziana, Spreng.

Spreng. in L. Syst. Veg. 16 ed. 4^1: 571. *d.* 1827.

Cæoma impatientatum, S.

S. Syn. Am. Bor. 293 no. 2880. 1834.

Aecidium impatientatum, S.

S. Syn. Am. Bor. 309. 1834.
Pk. Rept. N. Y. Mus. **29**: 76. 1878.
*Ell. N. A. F. *1001*. 1883.
Trel. Tr. Wis. Acad. **6**: 135 (31). Nov. 1884.
Arth. Bull. Iowa Agr. Coll. **1884**: 166. Jan. 1885.
Kellerm. Bull. Wash. Lab. **1**: 75. Jan. 1885 and Tr. Kans. Acad. **9**: 81. 1885.
Kellerm. & Carl. Tr. Kans. Acad. **10**: 91. 1887.

Aecidium incurvum, Tracy & Earle.

NOTE. See also *Aecidium erigeronatum*, *S.*

Tracy & Earle in Greene, Pl. Baker **1**: 18. *d.* 22 Feb. 1901.
Sacc. & Syd. Syll. **16**: 1121. 1 Feb. 1902.

Aecidium intermixtum, Pk.

NOTE. "This occurs in company with *Puccinia intermixta*, of which it is probably a form." Peck 1879.

Pk. Bot. Gaz. **4**: 231. *d.* Nov. 1879.
Langlois, Cat. Pl. La. 27. 1887.
De Toni in Sacc. Syll. **7**: 800. *d.* 28 Oct. 1888.
Kelsey, Jour. Myc. **5**: 80. June 1889.
*Ell. & Ev. N. A. F. *2405*. April 1890.
*Ell. & Ev. Fung. Columb. *63*. 1893.
Tracy & Earle in Greene, Pl. Baker. **1**: 18. 22 Feb. 1901.
Syd. Mon. Ured. **1**: 101. 30 June 1902.

Aecidium interveniens, (Pk.) n. n.

NOTE. Possibly the *Aecidium* on *Malvastrum* mentioned by Farlow in Bull. Bussey Inst. **2**: 242. Jan. 1878 as growing with *Puccinia Malvastri* may be the same as *Aecidium interveniens*, Pk. but although growing with the *Puccinia* there is no proof that it is a stage of it. Compare also *Aecidium Malvastri*, Ell. & Tracy and *Aecidium Sphæralceæ*, Ell. & Ev.

Roestelia interveniens, Pk.
Pk. Bull. Torr. Bot. Club **10**: 74. *d.* July 1883.
Halsted, Bull. Iowa Agr. Coll. **1886**: 58. 1887.
De Toni in Sacc. Syll. **7**: 834. *d.* 28 Oct. 1888.

Aecidium Ipomœæ, B.
See ***Cystopus Ipomœæ-panduranæ***, Farl.

Aecidium Ipomœæ-panduranæ, S.
See ***Cystopus Ipomœæ-panduranæ***, Farl.

Aecidium Iridis, Gerard.
Gerard in Pk. Rept. N. Y. Mus. **24**: 93. *d.* 1872.
Pk. Rept. N. Y. Mus. **29**: 77. 1878.
*Thm. Myc. Univ. *1519*. 1880.
*Wint. Fung. Eur. *2927*. 1883.
*Ell. N. A. F. *1014*. 1883.
Arth. Bull. Iowa Agr. Coll. **1884**: 166. Jan. 1885.
De Toni in Sacc. Syll. **7**: 827. *d.* 28 Oct. 1888.
*Roum. Fung. Gall. *4917*. 1889.
Roum. Rev. Myc. **11**: 129. July 1889.
Webber, Bull. Nebr. Exp. Sta. **1**: 332 (62). 18 Dec. 1889.
Webber, Rept. Nebr. Agr. **1889**: 211 (71). 1890.
Cheney, Tr. Wis. Acad. **10**: 69. Oct. 1895.
Davis, Tr. Wis. Acad. **11**: 174. Aug. 1897.
Tubeuf-Smith, Diseases of Plants 411. 1897.
Freeman, Minn. Bot. Studies II. 5: 554. 20 July 1901.

Aecidium Isnardiæ, Lagerh.

NOTE. This species of Lagerheim is apparently founded on Lea's specimen in Herb. Fries and we have placed under the name *Aecidium Isnardiæ*, Lagerh. all the references to *Aecidia* as quoted on *Isnardia*. It is not improbable that *Aecidium Isnardiæ* should be referred to *Aecidium Ludwigiæ*, Ell. & Ev. published two years earlier, but the specimens of the first named species which we have examined are not sufficient to settle that point.

Lagerh. Tromsoe Mus. Aarshefter **17**: 102. *d.* 1895.
Sacc. Hedw. **35**: xviii. 25 Feb. 1896. [Reportorium No. 7.]
Sacc. & Syd. Syll. **14**: 376. *d.* 20 Aug. 1899.
Aecidium Epilobii, Auct. Amer. p. p.
Lea, Cat. Pl. Cin. 71. 1849.
M. A. Curtis, Bot. N. Car. 123. 1867.
Cke. Handbook 536. *d.* 1871.
B. Grev. **3**: 61 (103). Dec. 1874.
James, Jour. Cin. Soc. **2**: 67 (26). April 1879.
Kellerm. & Werner, Geol. Ohio **7**^{2}: 346. Jan. 1895.

Aecidium isomerinum, Pk.
Pk. Bull. Torr. Bot. Club **10**: 75. *d.* July 1883.
Hark. Bull. Cal. Acad. **1**: 262 (7). 19 Nov. 1885.
De Toni in Sacc. Syll. **7**: 779. *d.* 28 Oct. 1888.

Aecidium Jacobæ, Auct. Amer.
See ***Aecidium Compositarum***, var. ***Senecionis***. Auct. Amer.

Aecidium Jacquemontiæ, Ell. & Ev. Mexico.
Ell. & Ev. Jour. Myc. **8**: 11. *d.* 31 May 1902.

Aecidium Jamesianum, Pk.

NOTE. As the result of cultures Arthur states this to be the æcidial stage of *Puccinia Bartholomæi*, Diet. = *Puccinia Jamesiana*, (Pk.) Arth. See Arth. Bot. Gaz. **35**: 18. 20 Jan. 1903. See also Syd. Mon. Ured. **1**: 734. 1 Nov. 1903 and Klebahn, Rostpilze 282. 1904.

Pk. Bot. Gaz. **5**: 34. *d.* March 1880.
*Ell. N. A. F. *1012.* 1883.
Trel. Tr. Wis. Acad. **6**: 135 (31). Nov. 1884.
Arth. Bull. Iowa Agr. Coll. **1884**: 166. Jan. 1885.
Kellerm. Bull. Wash. Lab. **1**: 75. Jan. 1885 and Tr. Kans. Acad. **9**: 81. 1885.
Burrill, Bull. Ill. Lab. **2**: 236. *d.* 1885 and Rept. Ill. Ind. Univ. **12**: 147. *d.* 1885.
Kellerm. & Carl. Tr. Kans. Acad. **10**: 91. 1887.
De Toni in Sacc. Syll. **7**: 808. *d.* 28 Ohio 1888.
Webber, Bull. Nebr. Exp. Sta. **1**: 332 (62). 18 Dec. 1889.
Gall. Bull. U. S. Agr. Veg. Pathol. 8: 56. 1889.
Webber, Rept. Nebr. Agr. **1889**: 211 (71). 1890.
Williams, Bull. S. Dak. Exp. Sta. 29: 49. Dec. 1891.
Smith & Pound, Bot. Surv. Nebr. 2: 28. 15 April 1893.
Pound, Bot. Surv. Nebr. 3: 9. 18 June 1894.
*Carl. Ured. Amer. *32.* 1894.
*Ell. & Ev. Fung. Columb. *556.* 1894.
Tubeuf-Smith, Diseases of Plants 411. 1897.
Barthol. Tr. Kans. Acad. **16**: 189. June 1899.
Freeman, Minn. Bot. Studies II. 5: 558. 20 July 1901.
*Barthol., Ell. & Ev. Fung. Columb. *1603.* Oct. 1902.
Arth. Bot. Gaz. **35**: 18. 20 Jan. 1903.
Garrett, Tr. Kans. Acad. **18**: 147. 1903.

Aecidium Kellermanni, De Toni.

De Toni in Sacc. Syll. **7**: 788. *d.* 28 Oct. 1888.
Barthol. Tr. Kans. Acad. **16**: 190. June 1899.
Garrett, Tr. Kans. Acad. **18**: 147. 1903.

Aecidium amphigenum, Ell. & Kellerm.

Ell. & Kellerm. Jour. Myc. **2**: 4. *d.* Jan. 1886.
Kellerm. & Carl. Tr. Kans. Acad. **10**: 91. 1887.

Aecidium laceratum, Sow.

NOTE. Under *Aecidium laceratum* we have included references which belong to the aecidium of *Gymnosporangium clavariæforme.* The name *Aecidium laceratum* has, however, been applied by some American writers also to the aecidia of *Gymnosporangium globosum* and some of the references given below may belong to that species.

?Watt, Can. Nat. & Geol. II. **2**: 391. Oct. 1865.

Rœstelia lacerata, Mer.

B. Grev. **3**: 59 (101). Dec. 1874.
Farl. Proc. Am. Acad. **20**: 318. 1885.
Farl. Bot. Gaz. **11**: 190. July 1886.
Farl. Bot. Gaz. **11**: 238, 241. Sept. 1886.
Thax. Proc. Am. Acad. **22**: 263, 265–267. Jan. 1887 and Centralbl. Bact. **1**: 432, 458–460. 1887.
Seymour, Tr. Am. Hort. Soc. **4**: 155 (4). 7 April 1887.
Thax. Bot. Gaz. **14**: 164, 167. July 1889.
Tubeuf Centralbl. Bact. **9**: 95. 2 Feb. 1891.
Thax. Bull. Conn. Exp. Sta. 107: 5. 15 April 1891.
Richards, Proc. Am. Acad. **31**: 265. 1896.

?Rœstelia lacerata, Auct. Amer. p. p. ***Host unknown.***

Sprague, Proc. Boston Soc. **5**: 329. 1856.
Bundy, Geol. Wis. 1873-79, **1**: 400. 1883.
Bennett, Cat. Pl. R. I. 89. 1888.
Fairman, Proc. Rochester Acad. **1**: 47. Aug. 1890.

??Rœstelia lacerata, Auct. Amer. p. p.
Russell, Am. Nat. **2**: 568. *f. 2.* Jan. 1869.
Cke. Proc. Portland Soc. **1**: 180. *d.* 1869.
Pk. Rept. N. Y. Mus. **22**: 93. 1869.
?Rœstelia lacerata, Auct. Amer. p. p.

NOTE. Some of the five following references may relate, at least in part, to *Aecidium Nidus-avis*, (Thax). R. T.

Pk. Rept. N. Y. Mus. **24**: 103. 1872.
Farl. Bull. Bussey Inst. **2**: 225. Jan. 1878.
Pk. Rept. N. Y. Mus. **29**: 76. 1878.
Farl. Anniv. Mem. Boston Soc. 29. 1880.
Somers, Tr. N. Scot. Inst. **7**: 465. 1890.
Rœstelia penicillata, Auct. Amer. p. p.
Farl. Anniv. Mem. Boston Soc. 30. 1880.
*Ell. N. A. F. *1086 c.* 1883.
?Rœstelia penicillata, Auct. Amer. p. p.
Pk. Rept. N. Y. Mus. **34**: 46. Oct. 1883.
Trel. Tr. Wis. Acad. **6**: 138 (34). Nov. 1884.
Farl. Proc. Am. Acad. **20**: 318. 1885.
Bessey, Am. Pomol. Soc. **1885**: 43. 1886.

Aecidium on **Larix.**
Mayr, Waldungen von Nordamer. 221. 1890.

Aecidium lateripes, Kellerm.

NOTE. This name is given to an æcidium produced on *Ruellia strepens* by sowing teleutospores of *Puccinia lateripes*, B. & Rav. from the same host-plant. See also Kellerm. Jour. Myc. **9**: 107–109. 29 May 1903. See also Carl. Tr. Kans. Acad. **14**: 44. 1896. See also *Aecidium Tracyanum*, Syd.

Kellerm. Jour. Myc. **9**: 234, 238. 31 Dec. 1903.

Aecidium lauratum, Watt.

NOTE. This is a mere catalogue name and there is no clue to its identity.

Watt, Can. Nat. & Geol. II. **2**: 391. Oct. 1865.

Aecidium on **Lechea.**

NOTE. Berkeley in Grev. **3**: 60 (102). Dec. 1874 reports an *Aecidium* on *Lechea* which is quoted by Syd., Sacc. Syll. **13**: 647. 1898. The name given is *Aecidium Compositarum*. There is probably an error in the name of the host.

Aecidium Ledi, Herb. Auerswald.

NOTE. This species was never described, but is cited in Beitr. Biol. Pflanzen **3**: 52. 1883. There Schrœter states that it is the same as the uredo of *Chrysomyxa Ledi*, (A. & S.) D By.; but in Ber. Schles. Ges. **1887**: 279 he refers it to *Uredo ledicola*, Pk.

Aecidia on **Leguminosæ.**

NOTE. The confusion and uncertainty which prevail among American mycologists in the use of old European names of *Aecidia* on *Leguminosæ*, such as *Aecidium Leguminosarum*, *Aecidium Orobi*, etc., is so great that we have here arranged the *Aecidia* which have been reported on species of that order alphabetically by hosts, giving also for convenience cross references to the species whose literature is comparatively clear.

Aecidium on **Leguminosæ,** sp. indet.
Aecidium Orobi, Auct. Amer. p. p.
Watt, Can. Nat. & Geol. II. **2**: 391. Oct. 1865.

Aecidium on **Amphicarpæa.**
Arth. Jour. Myc. **10**: 14. 30 Jan. 1904.

Aecidium leguminosatum, Auct. Amer. p. p.
Arth. Bull. Iowa Agr. Coll. **1884**: 166. Jan. 1885.
Aecidium Orobi, Auct. Amer. p. p.
Burrill, Bull. Ill. Lab. **2**: 226. *d.* 1885 and Rept. Ill. Ind. Univ. **12**: 142. *d.* 1885.
Gall. Bull. U. S. Agr. Veg. Pathol. 8: 56. 1889.
Claassen, Rept. Ohio Acad. **5**: 68. 1897.
Freeman, Minn. Bot. Studies II. 5: 554. 20 July 1901.
Aecidium Phaseolorum, Auct. Amer.
*Ell. N. A. F. *1436.* 1885.

Aecidium on **Apios.**
Arth. Jour. Myc. **10**: 14. 30 Jan. 1904.
Aecidium leguminosatum, Auct. Amer. p. p.
Arth. Bull. Iowa Agr. Coll. **1884**: 166. Jan. 1885.
Aecidium Orobi, Auct. Amer. p. p.
Freeman, Minn. Bot. Studies II. 5: 554. 20 July 1901.

Aecidium on **Baptisia.**
See ***Aecidium Kellermannii,*** De Toni.

Aecidium on **Cassia.**
See ***Aecidium Cassiæ,*** Ell. & Kellerm.

Aecidium on **Dalea.**
See ***Aecidium Daleæ,*** Kellerm. & Swingle.

Aecidium on **Desmodium.**
Aecidium Orobi, Auct. Amer. p. p.
B. Grev. **3**: 61 (103). Dec. 1874.
Underw. & Earle, Bull. Ala. Exp. Sta. 80: 209. 28 June 1897.
Earle in Mohr, Contr. U. S. Nat. Herb. **6**: 193. 31 July 1901.

Aecidium on **Lathyrus.**
Aecidium Orobi, Auct. Amer. p. p.
Nelson, Rept. Wyo. Exp. Sta. **10**: (36). 1900.
Tracy & Earle in Greene, Pl. Baker. **1**: 19. 22 Feb. 1901.
See also ***Aecidium album,*** Clint.

Aecidium on **Lespedeza.**
See ***Aecidium leucostictum,*** B. & C.

Aecidium on **Lupinus.**
See ***Aecidium Lupini,*** Pk.

Aecidium on **Phaseolus.**

NOTE. An *Aecidium* on *Phaseolus* produced by sowing teleutospores of bean rust is reported by Arthur, Jour. Myc. **10**: 14. 30 Jan. 1904. See *Uromyces appendiculatus,* (P.) Lev. *Aecidium Phaseolorum* has been reported on *Amphicarpæa.* See above.

Aecidium on **Psoralea.**
Aecidium porosum, Auct. Amer. p. p.
Arth. Bull. Iowa Agr. Coll. **1884**: 167. Jan. 1885.
See also ***Aecidium Onobrychidis,*** Burrill.
See also ***Aecidium Psoraleæ,*** Pk.

Aecidium on **Trifolium.**

NOTE. In Tr. Wis. Acad. **14**: 101. Sept. 1903 Davis mentions an *Aecidium* on *Trifolium repens* as belonging to *Uromyces minor,* Schrt.

See also ***Aecidium elegans,*** B. & C.
See also ***Aecidium Trifolii-repentis,*** Cast.

Aecidium on **Vicia.**
See ***Aecidium album,*** Clint.

Aecidium Leguminosarum, N. A. F. 2216.
See ***Aecidium Lupini,*** Pk.

Aecidium leguminosatum, Auct. Amer. p. p.
See on ***Amphicarpæa*** and ***Apios*** under ***Aecidium*** on ***Leguminosæ.***

Aecidium Lepidii, Tracy & Gall.
Tracy & Gall. Jour. Myc. **4**: 21. *d.* March 1888.
De Toni in Sacc. Syll. **7**: 779. *d.* 28 Oct. 1888.
Anderson, Jour. Myc. **5**: 82. June 1889.
Webber, Bull. Nebr. Exp. Sta. **1**: 332 (62). 18 Dec. 1889.
Webber, Rept. Nebr. Agr. **1889**: 211 (71). 1890.
Tubeuf-Smith, Diseases of Plants 410. 1897.
Cockerell, Jour. Myc. **10**: 51. 19 March 1904.

Aecidium Leptotæniæ, Lindr.
Lindr. Meddel. Stockholms Hoegskolas Bot. Inst. **4**: 8. *d.* 8 March 1901 and Bot. Centralbl. **88**: 4. 25 Sept. 1901.
Lindr. Acta Soc. Fauna et Fl. Fennica **22**[1]: 167. *d.* 1902.
Aecidium Aethusæ, Ell. & Ev. non Kirch.
*Ell. & Ev. N. A. F. *3581.* 24 Jan. 1898.
*Ell. & Ev. Fung. Columb. *1298.* May 1898.

Aecidium leucospermum, D C.
See ***Aecidium Anemones,*** P.
See also under ***Aecidium Ranunculacearum,*** Auct. Amer. p. p.
Holw. Jour. Myc. **8**: 172. 20 Dec. 1902.
Klebahn, Rostpilze 357. 1904.

Aecidium leucostictum, B. & C.

NOTE. Cultures by Arthur show that this belongs to *Uromyces Lespedezæ,* Pk. which accompanies and follows it. See Arthur, 1904.

B. & C. in M. A. Curtis, Bot. N. Car. 123. 1867.
Burrill, Bull. Ill. Lab. **2**: 226. *d.* 1885 and Rept. Ill. Ind. Univ. **12** 142. *d.* 1885.
*Ell. & Ev. N. A. F. *1827.* 1887.
De Toni in Sacc. Syll. **7**: 787. *d.* 28 Oct. 1888.
*Ell. & Ev. Fung. Columb. *59.* 1893.
Underw. & Earle, Bull. Ala. Exp. Sta. 80: 209. 28 June 1897.
Seymour, Rhodora **2**: 186. 8 Sept. 1900.
Earle in Mohr, Contr. U. S. Nat. Herb. **6**: 193. 31 July 1901.
Arth. Jour. Myc. **10**: 14, 20. 30 Jan. 1904.
Aecidium Orobi, var. ***leucostictum,*** B.
B. Grev. **3**: 61 (103). *d.* Dec. 1874.

Aecidium Liatridis, (Webber) Ell. & Anderson.
Ell. & Anderson, Bot. Gaz. **16**: 47. *d.* Feb. 1891.
Ell. & Anderson, Bot. Gaz. **16**: 85. *pl. 10 f. 11–16.* March 1891.
Sacc. Syll. **9**: 325. *d.* 15 Sept. 1891.
*Carl. Ured. Amer. *38.* 1894.
Barthol. Tr. Kans. Acad. **16**: 190. June 1899.
Aecidium Compositarum, var. ***Liatridis,*** Webber.
Webber, Bull, Nebr. Exp. Sta. **1**: 330 (60). 18 Dec. 1889.
Webber, Rept. Nebr. Agr. **1889**: 210 (70). *d.* 1890.
Smith & Pound, Bot. Surv. Nebr. **2**: 28. 15 April 1893.
Freeman, Minn. Bot. Studies II. 5: 557. 20 July 1901.

Aecidium Ligustici, Ell. & Ev.
Ell. & Ev. Bull. Torr. Bot. Club. **11**: 73. *d.* July 1884.
De Toni in Sacc. Syll. **7**: 807. *d.* 28 Oct. 1888.
Lindr. Acta Soc. Fauna et Fl. Fennica **22**[1]: 165. *d.* 1902.

Aecidium Ligustri, Strauss.
Pk. Rept. N. Y. Mus. **56**: 28. May 1903. [Bull. 67].

NOTE. For references to the connection of this *Aecidium* with *Puccinia obtusata,* Otth on *Phragmites communis* see Klebahn, Rostpilze 285. 1904.

Aecidium Limonii, Pk.
See ***Aecidium Statices,*** Desm.

Aecidium Ludwigiæ, Ell. & Ev.

NOTE. See also *Aecidium Isnardiæ* Lagerh.

Ell. & Ev. Proc. Phil. Acad. **1893**: 155. *d.* 28 Feb. 1893.
Tracy & Earle, Bull. Miss. Exp. Sta. 34: 90. May 1895.
Sacc. Syll. **11**: 216. *d.* July 1895.
McClatchie, Proc. S. Cal. Acad. **1**: 372. 5 June 1897.
Patterson, Bull. U. S. Agr. Pl. Industry 8: 8. 3 Feb. 1902.

Aecidium luminatum, S.
See ***Gymnoconia interstitialis,*** (Schl.) Lagerh.

Aecidium Lupini, Pk.
Pk. Rept. N. Y. Mus. **46**: 113 (33). *d.* Dec. 1893.
Sacc. Syll. **11**: 214. *d.* July 1895.
Freeman, Minn. Bot. Studies II. 5: 554. 20 July 1901.
Aecidium Leguminosarum, N. A. F.
*Ell. & Ev. N. A. F. *2216.* 1889.

Aecidium Lycopi, Gerard.

NOTE. As the result of cultures, this Aecidium is stated to belong to *Puccinia angustata* Pk. See Arthur, 1899, 1900, 1902, Kellerman, 1903. Although with one exception the name is spelled *Lycopi* in references below, the correct spelling should be *Lycopodis* as given by Ellis, 1896.

Gerard in Pk. Bull. Buf. Soc. **1**: 68. *d.* July 1873.
Gerard in Pk. Rept. N. Y. Mus. **26**: 78. *d.* April 1874.
Frost in Cat. Pl. Amherst 85. 1875.
Pk. Rept. N. Y. Mus. **29**: 77. 1878.
Burrill, Bull. Ill. Lab. **2**: 234. *d.* 1885 and Rept. Ill. Ind. Univ. **12**: 146. *d.* 1885.
Arth. & Holw. Bull. Minn. Surv. 3: 31. 1 Oct. 1887.
Cobb, List Pl. Amherst 40. 1887.
De Toni in Sacc. Syll. **7**: 815. *d.* 28 Oct. 1888.
*Ell. & Ev. N. A. F. *2996.* Oct. 1893.
*Shear, N. Y. Fungi *130.* 1893.
Underw. Proc. Ind. Acad. **1893**: 50. Aug. 1894.
Cheney, Tr. Wis. Acad. **10**: 69. Oct. 1895.
*Ell. & Ev. Fung. Columb. *1077.* 22 Dec. 1896.
Underw. & Earle, Bull. Ala. Exp. Sta. 80: 209. 28 June 1897.
Davis, Tr. Wis. Acad. **11**: 174. Aug. 1897.
Tubeuf-Smith, Diseases of Plants 411. 1897.
Arth. Science II. **10**: 565. 20 Oct. 1899.
Snyder, Proc. Ind. Acad. **1898**: 189. Dec. 1899.
Arth. Bot. Gaz. **29**: 273. 30 April 1900.
Freeman, Minn. Bot. Studies II. 5: 546. 20 July 1901.
Earle in Mohr, Contr. U. S. Nat. Herb. **6**: 193. 31 July 1901.
Patterson, Bull. U. S. Agr. Pl. Industry 8: 8. 3 Feb. 1902.
Arth. Jour. Myc. **8**: 56. 30 June 1902.
Syd. Mon. Ured. **1**: 690. *d.* 1 Nov. 1903.
Kellerm. Jour. Myc. **9**: 237. 31 Dec. 1903.

Aecidium Lygodesmiæ, (Webber) Shear.
*Shear, Ell. & Ev. Fung. Columb. *1476.* May 1901.

***Aecidium Compositarum*, var. *Lygodesmiæ*,** Webber.
Webber Am. Nat. **24**: 177. *d.* Feb. 1890.
Webber, Rept. Nebr. Agr. **1889**: 210 (70). *d.* 1890.
Sacc. Syll. **9**: 323 d. 15 Sept. 1891.
Smith & Pound. Bot. Surv. Nebr. 2: 28. 15 April 1893.
***?Aecidium*,** sp. indet.
Ell. & Ev. Proc. Phil. Acad. **1893**: 154. *d.* 28 Feb. 1893.

Aecidium Lysimachiæ, S.

NOTE. *Aecidium Lysimachiæ*, (Schl.) Wallr., which dates from 1823, is considered in Europe to be the æcidium of *Puccinia Limosæ*, Magn. *Aecidium Lysimachiæ*, S. dates from 1822, and, if the two are identical, the latter name has priority; but Schweinitzian specimens which we have seen are not in good condition. We have therefore here inserted the references given by writers as *Aecidium Lysimachiæ*, S., and added with doubt American references to *Aecidium Lysimachiæ*, (Schl.) Wallr.

S. Syn. Car. 67 (41) no. 438. *d.* 1822.
Lk., L. Sp. Pl. ed. Willd. **6**²: 46. 1825.
*Ell. N. A. F. *1424*. 1885.
*Ell. & Ev. N. A. F. *1424b*. Feb. 1889. [Issued with no. 2300.]
***Uredo Lysimachiæ*,** Spreng.
Spreng. in L. Syst. Veg. 16 ed. **4**¹: 571. *d.* 1827.
***Cæoma lysimachiatum*,** S.
S. Syn. Am. Bor. 292 no. 2863. 1834.
***?Aecidium Lysimachiæ*,** (Schl.) Wallr.
M. A. Curtis, Bot. N. Car. 124. 1867.
Pk. Rept. N. Y. Mus. **26**: 78. April 1874.
Trel. Tr. Wis. Acad. **6**: 134 (30). Nov. 1884.
Burrill, Bull. Ill. Lab. **2**: 233. *d.* 1885 and Rept. Ill. Ind. Univ. **12**: 146. *d.* 1885.
De Toni in Sacc. Syll. **7**: 817. *d.* 28 Oct. 1888.
Webber, Bull. Nebr. Exp. Sta. **1**: 332 (62). 18 Dec. 1889.
Gall. Bull. U. S. Agr. Veg. Pathol. 8: 56. 1889.
*Ell. & Ev. N. A. F. *2404*. April 1890.
Webber, Rept. Nebr. Agr. **1889**: 211 (71). 1890.
Barthol. Tr. Kans. Acad. **16**: 190. June 1899.
Jelliffe, Flora of Long Island 36. 1899.
Nelson, Rept. Wyo. Exp. Sta. **10**: (35). 1900.
Freeman, Minn. Bot. Studies II. 5: 558. 20 July 1901.
***Aecidium lysimachiatum*,** Pk.
Pk. Rept. N. Y. Mus. **29**: 77. 1878.

Aecidium lysimachiatum, Pk.
See ***Aecidium Lysimachiæ*,** S.

Aecidium macrosporum, Pk.

NOTE. See note under *Aecidium Smilacis*, S.

Pk. Rept. N. Y. Mus. **23**: 61. *d.* 1872.
Pk. Rept. N. Y. Mus. **24**: 106. 1872.
Pk. Rept. N. Y. Mus. **29**: 77. 1878.
De Toni in Sacc. Syll. **7**: 829. *d.* 28 Oct. 1888.
Tubeuf-Smith, Diseases of Plants. 411. 1897.
Barthol. Tr. Kans. Acad. **16**: 190. June 1899.
***Aecidium Smilacis*,** N. A. F.
*Ell. & Ev. N. A. F. *2708*. May 1892.

Aecidium magnatum, Arth.
Arth. Bull. Torr. Bot. Club **28**: 664. *d.* 30 Dec. 1901.
*Griffiths, West Am. Fung. *243*. 22 March 1902.

Aecidium Malvastri, Ell. & Tracy.

NOTE. Hennings also describes in Hedw. **36**: 216. 1 Aug. 1897 an *Aecidium Malvastri* on *Malvastrum spicatum* from Argentine Republic. See note under *Aecidium interveniens*, Pk. also note under *Aecidium Sphæralceæ*, Ell. & Ev.

Ell. & Tracy, Jour. Myc. **7**: 43. *d.* 10 Sept. 1891.
Sacc. Syll. **11**: 215. *d.* July 1895.

Aecidium malvicola, Arth.
Arth. Bull. Torr. Bot. Club **31**: 6. *d.* 19 Jan. 1904.

Aecidium Mariæ-Wilsoni, Pk.
See ***Aecidium pedatatum,*** S.

Aecidium Mariæ-Wilsoni, Halsted.
See ***Aecidium claytoniatum,*** S.
Halsted, Bull. Torr. Bot. Club **26**: 382. 18 July 1899.
Halsted, Rept. N. J. Exp. Sta. **1898**: 368. 1899.

Aecidium Maublancii, n. n.

NOTE. *Aecidium Mexicanum* Maublanc is antedated by the species of Diet. & Holw. of the same name.

Maublanc, Bull. Soc. Myc. Fr. **20**: 73. *d. pl.* 7, *f.* 9. 30 April 1904. Mexico.

Aecidium Menthæ, DC.

NOTE. The European plant of this name is called the aecidial stage of *Puccinia Menthæ*, P. The infrequent finding of the *Aecidium* may be significant, considering the abundance of the mint rust. A. B. S.

Pk. Rept. N. Y. Mus. **24**: 92, 106. 1872.
Frost in Cat. Pl. Amherst 85. 1875.
Pk. Rept. N. Y. Mus. **29**: 77. 1878.
Johnson, Bull. Minn. Acad. **1**: 366. *d.* 1880.
Arth. Bull. Iowa Agr. Coll. **1884**: 166. Jan. 1885.
Cobb, List Pl. Amherst 40. 1887.
Bennett, Cat. Pl. R. I. 89. 1888.
Cockerell, Jour. Myc. **10**: 51. 19 March 1904.

Aecidium Mertensiæ, Arth.
Arth. Bull. Torr. Bot. Club **31**: 6. *d.* 19 Jan. 1904.

Aecidium Mexicanum, Diet. & Holw.
Holw. Bot. Gaz. **24**: 36. *d.* 31 July 1897. Mexico.
Lindau & Syd. Hedw. **37**: xvii. 9 April 1898. [Beiblatt no. 7.]
Sacc. & Syd. Syll. **14**: 373. *d.* 20 Aug. 1899.

Aecidium Mexicanum, Maublanc.
See ***Aecidium Maublancii,*** n. n.

Aecidium on **Micromeria.**

NOTE. In Jour. Myc. **10**: 54. 19 March 1904 Dudley and Thompson describe a new species, *Puccinia Micromeriæ*, including æcidial stage, on *Micromeria* in California.

Aecidium micropunctum, Ell. & Ev.
Ell. & Ev. Jour. Myc. **6**: 119. *d.* 6 Jan. 1891.
Sacc. Syll. **9**: 322. *d.* 15 Sept. 1891.
Webber. Tr. St. Louis Acad. **6**: 15. 12 March 1892 and Contr. Bot. Dept. Univ. Nebr. 3: 15. 14 June 1892.

Aecidium minutissimum, Gerard.
See ***Aecidium Hyperici-frondosi,*** S.

Aecidium Mirabilis, Diet. & Holw.
Holw. Bot. Gaz. **24**: 37. *d.* 31 July 1897. Mexico.
Lindau & Syd. Hedw. **37**: xvii. 9 April 1898. [Beiblatt no. 7.]
Sacc. & Syd. Syll. **14**: 386. *d.* 20 Aug. 1899.

Aecidium mirabilissimum, Cockerell.

NOTE. Thought by the author to belong to *Puccinia mirabilissima*, Pk.

Cockerell, Journ. Myc. **5**: 85. June 1889.

Aecidium on **Monardella.**

NOTE. On this host Dudley and Thompson in Jour. Myc. **10**: 53. 19 March 1904, describe a new species, *Puccinia Monardellæ*, with æcidial stage.

Aecidium monoicum, Pk.

NOTE. The *Aecidium* of this name has usually been reported on species of *Arabis* and *Sisymbrium*, and it may perhaps include two different forms possibly connected with *Puccinia Holbœllii*, (Hornem.) Rostr. and *Puccinia consimilis*, Ell. & Ev. See also *Aecidium Drabæ*, Tracy & Gall. and *Aecidium Parryi*, Pk.

Pk. Bot. Gaz. **4**: 230. *d.* Nov. 1879.
De Toni in Sacc. Syll. **7**: 779. *d.* 28 Oct. 1888.
Cockerell, Zoe **4**: 284. Oct. 1893.
Jones, Proc. Cal. Acad. II. **5**: 730. 3 Oct. 1895.
Tracy & Earle in Greene, Pl. Baker. **1**: 18. 22 Feb. 1901.
Lindr. Acta Soc. Fauna et Fl. Fennica **20**[9]: 21. 1901.

On ***Sisymbrium.***

Anderson, Jour. Myc. **5**: 82. June 1889.
Ell. & Ev. Jour. Myc. **6**: 121. *d.* 6 Jan. 1891.
Ell. in Nelson, Bull. Wyo. Exp. Sta. 28: 203. May 1896.
Nelson, Rept. Wyo. Exp. Sta. **10**: (35). 1900.
Cockerell, Jour. Myc. **10**: 51. 19 March 1904.

On ***Smelowskia.***

Jones, Proc. Cal. Acad. II. **5**: 730. 3 Oct. 1895.

Aecidium Montanoæ, Diet. & Holw.
Holw. Bot. Gaz. **24**: 36. *d.* 31 July 1897. Mexico.
Lindau & Syd. Hedw. **37**: xvii. 9 April 1898. [Beiblatt no. 7.]
Sacc. & Syd. Syll. **14**: 379. *d.* 20 Aug. 1899.

Aecidium Myosotidis, Burrill.
Burrill, Bot. Gaz. **9**: 190. *d.* Dec. 1884.
Burrill, Bull. Ill. Lab. **2**: 234. *d.* 1885 and Rept. Ill. Ind. Univ. **12**: 146. *d.* 1885.
Wint. & Demet. Hedw. **24**: 180 (4). Oct. 1885.
*Ell. & Ev. N. A. F. *1832.* 1887.
De Toni in Sacc. Syll. **7**: 810. *d.* 28 Oct. 1888.
Gall. Bull. U. S. Agr. Veg. Pathol. 8: 56. 1889.
Lagerh. Tromsoe Mus. Aarshefter **17**: 103. *d.* 1895.
Tubeuf-Smith, Diseases of Plants 411. 1897.

Aecidium myricatum, S.
S. Syn. Am. Bor. 309. 1834.
Pk. Rept. N. Y. Mus. **23**: 60. *d.* 1872.
Pk. Rept. N. Y. Mus. **24**: 106. 1872.
Farl. Bull. Bussey Inst. **1**: 433. March 1876.
Pk. Rept. N. Y. Mus. **29**: 77. 1878.
*Ell. N. A. F. *230.* 1879.
*Thm. Myc. Univ. *1224.* 1879.
Thm. Flora **63**: 316. 11 July 1880.
De Toni in Sacc. Syll. **7**: 826. *d.* 28 Oct. 1888.

*Roum. Fung. Gall. *4835*. 1889.
Roum. Rev. Myc. **11**: 63. 1 April 1889.
Ell. in Cat. Pl. N. J. 505. 1889.
*Ell. & Ev. Fung. Columb. *62*. 1893.
Cæoma myricatum, S.
S. Syn. Am. Bor. 294 no. 2894. *d*. 1834.

Aecidium Napææ, Arth. & Holw.

NOTE. In Bull. Torr. Bot. Club **31**: 7. 19 Jan. 1904 Arthur states that *Aecidium Callirrhoes*, Ell. & Kellerm. (*q. v.*) is a synonym of *Aecidium Napææ*, Arth. & Holw. See also *Aecidium Sphæralceæ*, Ell. & Ev.

Arth. Bull. Iowa Agr. Coll. **1884**: 166. *d*. Jan. 1885.
De Toni in Sacc. Syll. **7**: 783. *d*. 28 Oct. 1888.
*Ell. & Ev. N. A. F. *2401*. April 1890.
Detmers, Bull. Ohio Exp. Sta. **44**: 139. Sept. 1892.
Kellerm. & Werner, Geol. Ohio **7**[2]: 346. Jan. 1895.
Underw. Proc. Ind. Acad. **1894**: 151. Oct. 1895.
Arth. Bull. Torr. Bot Club **31**: 7. 19 Jan. 1904.

Aecidium Nelsoni, (Arth.) n.n.

NOTE. Arthur, 1901 suggests that *Gymnosporangium Nelsoni*, Arth. may be the teleutosporic stage. See also Klebahn, Rostpilze 354. 1904.

Roestelia lacerata, Auct. Amer. p. p.
Hark. Bull. Cal. Acad. **2**: 440. 16 June 1887.
Seymour, Proc. Boston Soc. **24**: 190. 8 Nov. 1889.
Roestelia cornuta, Auct. Amer. p. p.
*Ell. & Ev. N. A. F. *3146*. Nov. 1894.
*Ell. & Ev. Fung. Columb. *761*. 24 April 1895.
Roestelia Ellisii, Fung. Columb. 1292 non Pk.
*Ell. & Ev. Fung. Columb. *1292*. May 1898.
Roestelia Nelsoni, Arth.
Arth. Bull. Torr. Bot. Club **28**: 665. *d*. 30 Dec. 1901.
*Griffiths, West Am. Fung. *246, 264*. 22 March 1902.
*Barthol., Ell. & Ev. Fung. Columb. *1676*. Oct. 1902.

Aecidium Nesææ, Gerard.

NOTE. Accompanies *Puccinia Nesææ*, Ell. & Ev.

Gerard, Bull. Torr. Bot. Club **4**: 47. *d*. Oct. 1873 and Hedw. **13**: 28. *d*. Feb. 1874.
Pk. Rept. N. Y. Mus. **27**: 104. 1875.
Pk. Rept. N. Y. Mus. **29**: 77. 1878.
*Ell. N. A. F. *1015*. 1883.
*Wint. Fung. Eur. *3019*. 1884.
De Toni in Sacc. Syll. **7**: 789. *d*. 28 Oct. 1888.
Ell in Cat. Pl. N. J. 505. 1889.
Detmers, Bull. Ohio Exp. Sta. tech. ser. **1**: 174. April 1893.
Davis, Tr. Wis Acad. **9**: 182. 21 Aug. 1893.
*Ell & Ev. Fung. Columb. *197*. 1893.
Kellerm. & Werner, Geol. Ohio **7**[2]: 346. Jan. 1895.
Kellerm. Jour. Myc. **9**: 12. 14 Feb. 1903.

Aecidium Nidus-avis, (Thax.) n. n.
Rœstelia cornuta, Auct. Amer. p. p.
Farl. Bot. Gaz. **11**: 190. July 1886.
Farl. Bot. Gaz. **11**: 238. Sept. 1886.
Thax. Proc. Am. Acad. **22**: 264, 267, 268. Jan. 1887 and Centralbl. Bact. **1**: 433, 458–460. 1887.
Thax. Bot. Gaz. **14**: 165. July 1889.

Rœstelia Nidus-avis, Thax.
Thax. Bull. Conn. Exp. Sta. 107: 5. 15 April 1891.
Thax. Rept. Conn. Exp. Sta. **1891**: 164. March 1892.
*Seymour & Earle, E. F. *240.* 1 Feb. 1893.
Stevens, Rept. Ohio Acad. **4**: 20. 1896.

Aecidium nitens, S.
See ***Gymnoconia interstitialis,*** (Schl.) Lagerh.

Aecidium oblongum, Bon.
See ***Aecidium Hyperici-frondosi,*** S.

Aecidium occidentale, Arth.

NOTE. See also *Aecidium Clematidis,* D C.

Arth. Bull. Torr. Bot. Club **31**: 7. *d.* 19 Jan. 1904.

Aecidium Oenotheræ, Pk.

NOTE. The name *Aecidium Oenotheræ,* Pk. was changed by De Toni in 1888 to *Aecidium Peckii* on the supposition that it was different from the earlier described *Aecidium Oenotheræ,* Mont. But *Peridermium Peckii,* Thm. here given as *Aecidium* dates from 1880. It is not certain whether any of the North American *Aecidia* on *Oenothera* really belong to *Aecidium Oenotheræ,* Mont. but at least the greater part of them are certainly *Aecidium Oenotheræ,* Pk. which according to Kellerman is connected with a *Puccinia* on *Carex* called by him *Puccinia Peckii.*

We have therefore thought best to retain as an index name *Aecidium Oenotheræ,* Pk. without regard to Montagne's name in order to avoid creating still greater confusion in the synonymy. For further references see also *Aecidium Epilobii.* See Kellerman, Jour. Myc. **8**: 20. 31 May 1902 and **9**: 9. 14 Feb. 1903. Arth. Jour. Myc. **8**: 52. 30 June 1902 and Bot. Gaz. **35**: 13. 20 Jan. 1903. Syd. Mon. Ured. **1**: 671. 1 Nov. 1903. Klebahn, Rostpilze 306. 1904.

Pk. Rept. N. Y. Mus. **23**: 60. *d.* 1872.
Pk. Rept. N. Y. Mus. **24**: 107. 1872.
Frost in Cat. Pl. Amherst 85. 1875.
Pk. Rept. N. Y. Mus. **29**: 76. 1878.
Bundy, Geol. Wis. 1873–79 **1**: 400. 1883.
*Ell. N. A. F. *1016.* 1883.
Trel. Tr. Wis. Acad. **6**: 134 (30). Nov. 1884.
Arth. Bull. Iowa Agr. Coll. **1884**: 167. Jan. 1885.
Burrill, Bull. Ill. Lab. **2**: 227. *d.* 1885 and Rept. Ill. Ind. Univ. **12**: 142. *d.* 1885.
Brendel, Flora Peoriana 2 ed. 69. 1887.
Cobb, List Pl. Amherst 40. 1887.
Halsted, Bull. Iowa Agr. Coll. **1886**: 58. 1887.
Kellerm. & Carl. Tr. Kans. Acad. **10**: 91. 1887.
*Roum. Fung. Gall. *4415.* 1888.
Roum. Rev. Myc. **10**: 86. 1 April 1888.
Gall. Bull. U. S. Agr. Veg. Pathol. 8: 56. 1889.
Detmers, Bull. Ohio Exp. Sta. **44**: 139. Sept. 1892.
Detmers, Bull. Ohio Exp. Sta. tech. ser. **1**: 178. April 1893.
Underw. Proc. Ind. Acad. **1893**: 50. Aug. 1894.
Kellerm. & Werner, Geol. Ohio **7**[2]: 346. Jan. 1895.
Snyder, Proc. Ind. Acad. **1896**: 217. 1897.
Herbst, Fungal Fl. Lehigh Valley 175. *d.* 1899.
Davis, Tr. Wis. Acad. **14**: 87. Sept. 1903.

Aecidium Peckii, De Toni.
De Toni in Sacc. Syll. **7**: 790. *d.* 28 Oct. 1888.
Webber, Bull. Nebr. Exp. Sta. **1**: 333 (63). 18 Dec. 1889.
Webber, Rept. Nebr. Agr. **1889**: 211 (71). 1890.

*Ell. & Ev. Fung. Columb. *195*. 1893.
McClatchie, Proc. S. Cal. Acad. **1**: 372. 5 June 1897.
*Ell. & Ev. Fung. Columb. *1191*. July 1897.
Tubeuf-Smith, Diseases of Plants 411. 1897.
Orton, Rept. Vt. Exp. Sta. **11**: 211. Sept. 1898 and Contr. Bot. Vt. 2: 13. Sept. 1898.
Barthol. Tr. Kans. Acad. **16**: 190. June 1899.
Nelson, Rept. Wyo. Exp. Sta. **10**: (36). 1900.
Freeman, Minn. Bot. Studies II. 5: 559. 20 July 1901.
Patterson, Bull. U. S. Agr. Pl. Industry 8: 8. 3 Feb. 1902.
Kellerm. Ohio Nat. **2**: 206. *d*. Feb. 1902.
*Kellerm. Ohio Fungi *17. d*. March 1902.
*Griffiths, West Am. Fung. *58*. 22 March 1902.
*Barthol., Ell. & Ev. Fung. Columb. *1604*. Oct. 1902.
Arth. Bot. Gaz. **35**: 13. 20 Jan. 1903.
Garrett, Tr. Kans. Acad. **18**: 147. 1903.
?Aecidium Oenotheræ, Auct. Amer. p. p.
Ell. in Nelson, Bull. Wyo. Exp. Sta. 28: 203. May 1896.
Tubeuf-Smith, Diseases of Plants 411. 1897.
Nelson, Rept. Wyo. Exp. Sta. **10**: (35). 1900.
Ricker, Univ. of Maine Studies 3: 51. 30 April 1902.
Carl. Jour. Appl. Micr. **6**: 2110. 1903.

Aecidium on **Oenothera.**
See also under ***Aecidium Epilobii***, D. C.
See also ***Puccinia Heteranthæ***, Ell. & Ev.
See also ***Uromyces Oenotheræ***, Burrill.

Aecidium oldenlandianum, Ell. & Tracy.
Ell. & Tracy, Jour. Myc. **7**: 43. *d*. 10 Sept. 1891.
Tracy & Earle, Bull. Miss. Exp. Sta. 34: 90. *d*. May 1895.
Sacc. Syll. **11**: 219. *d*. July 1895.

Aecidium oldenlandianum, Underw. & Earle non Ell. & Tracy.
See ***Aecidium houstoniatum***, S.

Aecidium Onobrychidis, Burrill.
Burrill, Bot. Gaz. **9**: 189 *d*. Dec. 1884.
Burrill, Bull. Ill. Lab. **2**: 225. *d*. 1885 and Rept. Ill. Ind. Univ. **12**: 141. *d*. 1885.
*Ell. & Ev. N. A. F. *1826*. 1887.
De Toni in Sacc. Syll. **7**: 776. *d*. 28 Oct. 1888.
Gall. Bull. U. S. Agr. Veg. Pathol. 8: 56. 1889.
Underw. Proc. Ind. Acad. **1893**: 50. Aug. 1894.
Tubeuf-Smith, Diseases of Plants 410. 1897.

Aecidium Onosmodii, Arth.

NOTE. For *Aecidia* on *Borraginaceæ* see also *Aecidium Asperifolii*, P. and *Aecidium Myosotidis*, Burrill.

Arth. Bull. Torr. Bot. Club **31**: 6. *d*. 19 Jan. 1904.

?Aecidium Orchidearum, Desm.

NOTE. Compare also *Aecidium Græbnerianum*, Henn.

Syd. Ann. Myc. **1**: 21. 30 Jan. 1903.

Aecidium orientale, (Cke.) Diet.

NOTE. Whether the East Indian species of this name occurs in North America is doubtful. For what has been called by that name see *Aecidium carneum*, (Bosc.)

Diet. in Engler & Prantl, Pflanzenfam. **1**^{1**}: 78. 1897.

Aecidium (sub Peridermio) **ornamentale,** (Arth.)

NOTE. This species was originally described as a *Peridermium*, but we have here included that genus under *Aecidium*. The species cannot however be called *Aecidium ornamentale* as there is a species of that name described by Kalchbrenner in Thuemen, Myc. Univ. *224*. 1875 and in Flora **59**: 205. 1 May 1876.

Peridermium ornamentale, Arth.
Arth. Bull. Torr. Bot. Club **28**: 665. *d.* 30 Dec. 1901.

Aecidium Orobi, Auct. Amer.
See under ***Aecidium*** on ***Leguminosæ.***
See ***Aecidium Psoraleæ,*** Pk.
See ***Aecidium Trifolii-repentis,*** Cast.

Aecidium Orobi, var. **elegans,** B.
See ***Aecidium elegans,*** B. & C.

Aecidium Orobi, var. **leucostictum,** B.
See ***Aecidium leucostictum,*** B. & C.

Aecidium Osmorrhizæ, Pk.

NOTE. This *Aecidium* on *Osmorrhiza* is considered by Lindroth and by Sydow to belong to *Puccinia Osmorrhizæ*, C. & P., a species whose synonymy is far from clear. See Lindr. Acta Soc. Fauna et Fl. Fennica **22**[1]: 17. 1902. Syd. Mon. Ured. **1**: 397. 15 May 1903. For convenience we have included *Aecidia* on *Cicuta* and on *Pseudocymopterus* to which authors have applied this name. See Lindr. l. c. 53, 173. 1902.

In Jour. Myc. **9**: 10. 14 Feb. 1903 Kellerman gives an account of a culture in which the spores of this *Aecidium* from *Osmorrhiza* produced teleutospores on *Chærophyllum*. A. B. S.

Pk. Rept. N. Y. Mus. **24**: 92. *d.* 107. 1872.
Pk. Rept. N. Y. Mus. **29**: 77. 1878.
De Toni in Sacc. Syll. **7**: 794. *d.* 28 Oct. 1888.
Detmers, Bull. Ohio Exp. Sta. 44: 140. Sept. 1892.
*Syd. Uredineen *1347*. 1899.
? Lindr. Acta Soc. Fauna et Fl. Fennica **22**[1]: 173. 1902.
Kellerm. Jour. Myc. **9**: 10. 14 Feb. 1903.
Aecidium Pimpinellæ, Auct. Amer.
Arth. Bull. Iowa Agr. Coll. **1884**: 167. Jan. 1885.
? Arth. Bull. Iowa Agr. Coll. **1884**: 167. Jan. 1885. *Cicuta.*

Aecidium osmundatum, S.
S. Syn. Am. Bor. 309. 1834.
Cæoma osmundatum, S.
S. Syn. Am. Bor. 294 no. 2895. *d.* 1834.

Aecidium Oxalidis, Thm.
Arth. Bull. Iowa Agr. Coll. **1884**: 167. Jan. 1885.
*Ell. & Ev. N. A. F. *2210*. Feb. 1889.
Webber, Bull. Nebr. Exp. Sta. **1**: 333 (63). 18 Dec. 1889.
Webber, Rept. Nebr. Agr. **1889**: 211 (71). 1890.
Pound, Bot. Surv. Nebr. 3: 10. 18 June 1894.
Barthol. Tr. Kans. Acad. **16**: 190. June 1899.

Aecidium Palmeri, Anderson.

NOTE. Holway, in Erythea **7**: 98. 31 Oct. 1899 associated this as æcidial stage with the newly described *Puccinia Palmeri*, (Anderson) Diet. & Holw. See also Syd. Mon. Ured. **1**: 252. 15 Nov. 1902. See also Jones Proc. Cal. Acad. II. **5**: 728. 3 Oct. 1895 where an *Aecidium* on *Pentstemon confertus*, var. referred by him to *Aecidium Palmeri*, Anderson is said to occur with *Puccinia Pentstemonis*, Pk. See also Blasdale, Jour. Myc. **9**: 82. 29 May 1903.

Anderson, Jour. Myc. **6**: 122. *d.* 6 Jan. 1891.
Sacc. Syll. **9**: 321. *d.* 15 Sept. 1891.

Aecidium Palmeri, Anderson.
See ***Puccinia Pentstemonis,*** Pk.

Aecidium Pammelii, Trel.

NOTE. Cultures by William Stuart, 1902, show this to be the æcidial stage of *Puccinia Panici,* Diet.

Trel. Tr. Wis. Acad. **6**: 136 (32). *d.* Nov. 1884 and Jour. Myc. **1**: 15. *d.* Jan. 1885.
*Ell. N. A. F. *1427.* 1885.
*Roum. Fung. Gall. *4413.* 1888.
Roum. Rev. Myc. **10**: 86. 1 April 1888.
De Toni in Sacc. Syll. **7**: 823. *d.* 28 Oct. 1888.
*Ell & Ev. N. A. F. *2217.* Feb. 1889.
Webber, Bull. Nebr. Exp. Sta. 1: 333 (63). 18 Dec. 1889.
Gall. Bull. U. S. Agr. Veg. Pathol. 8: 56. 1889.
Webber, Rept. Nebr. Agr. **1889**: 211 (71). 1890.
*Pazschke, Fung. Eur. *4140.* 1898.
*Syd. Uredineen *1249.* 1898.
*Ell. & Ev. Fung. Columb. *1389.* May 1899.
Barthol. Tr. Kans. Acad. **16**: 190. June 1899.
Freeman, Minn. Bot. Studies II. 5: 559. 20 July 1901.
Stuart, Proc. Ind. Acad. **1901**: 284. 1902.
*Barthol., Ell. & Ev. Fung. Columb. *1706.* Feb. 1903.

Aecidium Parnassiæ, (Schl.) Gravis.
Trel. in Sacc., Pk. & Trel., Harriman Alaska Exp. **5**: 37. 5 April 1904.

Aecidium Parryi, Pk.

NOTE. See also *Aecidium monoicum,* Pk.

Pk. in Parry, Am. Nat. **8**: 215 (25). *d.* April 1874.

Aecidium Peckii, (Thm.) Diet.

NOTE. This species is the *Peridermium Peckii,* Thm. 1880 first mentioned as *Peridermium columnare* by Peck, 1876, 1878. It may possibly be connected with *Calyptospora Goeppertiana,* J. Kuehn, on species of *Vaccinium.* Attention should be called to the fact that the name *Aecidium Oenotheræ,* Pk. 1872 was changed to *Aecidium Peckii* by De Toni 1888. The last named species is the æcidium of *Puccinia Peckii,* (De Toni) Kellerm. *q. v.*

Diet in Engler & Prantl, Pflanzenfam. **1**1**: 78. 1897.
Peridermium columnare, Auct. Amer.
Pk. Rept. N. Y. Mus. **28**: 61. 1876.
Pk. Rept. N. Y. Mus. **29**: 77. 1878.
Peridermium Peckii, Thm.
Thm. Mittheil. forstl. Versuchs. Oest. **2**: 320 (24). *d.* 1880.
*Ell. N. A. F. *1023.* 1883.
Farl. Appalachia **3**: 239, 242. Jan. 1884.
De Toni in Sacc. Syll. **7**: 837. *d.* 28 Oct. 1888.
Millsp. Bull. W. Va. Exp. Sta. 24: 509. June 1892.
*Seymour & Earle, E. F. *225.* 1 Feb. 1893.
Millsp. & Nutt. Publ. Field Columb. Mus. Bot. **1**: 130. Jan. 1896.
Tubeuf-Smith, Diseases of Plants 417. 1897.
Orton, Rept. Vt. Exp. Sta. **11**: 213. Sept. 1898 and Contr. Bot. Vt. 2: 15. Sept. 1898.

Aecidium Peckii, De Toni.
See ***Aecidium Oenotheræ,*** Pk.

Aecidium pedatatum, S.
S. Syn. Am. Bor. 309. 1834.
Pk. Rept. N. Y. Mus. **34:** 46. Oct. 1883.
Arth. & Holw. Minn. Bot. Studies II. 5: 632. *d.* 20 July 1901.
Davis, Tr. Wis. Acad. **14:** 87. Sept. 1903.
Cæoma pedatatum, S.
S. Syn. Am. Bor. 293 no. 2885. *d.* 1834.
Cæoma sagittatum, S.
S. Syn. Am. Bor. 293 no. 2886. *d.* 1834.
Aecidium sagittatum, S.
S. Syn. Am. Bor. 309. 1834.
Aecidium Mariæ-Wilsoni, Pk.
Pk. Rept. N. Y. Mus. **24:** 92. *d.* 107. 1872.
Frost in Cat. Pl. Amherst 85. 1875.
Pk. Rept. N. Y. Mus. **29:** 76. 1878.
Bundy, Geol. Wis. 1873–79, **1:** 400. 1883.
Burrill, Bull. Ill. Lab. **2:** 223. *d.* 1885 and Rept. Ill. Ind. Univ. **12:** 140. *d.* 1885.
Cobb, List Pl. Amherst 40. 1887.
De Toni in Sacc. Syll. **7:** 780. *d.* 28 Oct. 1888.
Davis, Tr. Wis. Acad. **9:** 161. 21 Aug. 1893.
Underw. Proc. Ind. Acad. **1893:** 50. Aug. 1894.
Tracy & Earle, Bull. Miss. Exp. Sta. 34: 90. May 1895.
Underw. & Earle, Bull. Ala. Exp. Sta. 80: 209. 28 June 1897.
Tubeuf-Smith, Diseases of Plants 410. 1897.
Syd. in Sacc. Syll. **13:** 1313. 1898.
Arth. & Holw. Minn. Bot. Studies II. 5: 639. 20 July 1901.
Earle in Mohr, Contr. U. S. Nat. Herb. **6:** 193. 31 July 1901.
Ricker, Univ. of Maine Studies 3: 51. 30 April 1902.
Aecidium Petersii, B. & C.
B. Grev. **3:** 61 (103) no. 580. *d.* Dec. 1874.
Farl. Proc. Am. Acad. **18:** 75. July 1883.
Trel. Tr. Wis. Acad. **6:** 135 (31). Nov. 1884.
De Toni in Sacc. Syll. **7:** 780. *d.* 28 Oct. 1888.
Diet. Hedw. **28:** 185. 1889.
Lagerh. Tromsoe Mus. Aarshefter. **17:** 103. *d.* 1895.
Underw. & Earle, Bull. Ala. Exp. Sta. 80: 210. *d.* 28 June 1897.
Tubeuf-Smith, Diseases of Plants 410. 1897.
Sacc. & Syd. Syll. **14:** 372. *d.* 20 Aug. 1899.
Earle in Mohr, Contr. U. S. Nat. Herb. **6:** 193. 31 July 1901.
Puccinia Violæ, Carl. Ured. Amer. I.
*Carl. Ured. Amer. *28.* 1894.

Aecidium pentstemoniatum, S.
See ***Aecidium Pentastemonis,*** S.

Aecidium Pentastemonis, S.

NOTE. According to observations and cultures by Arthur and by Stuart this is the æcidial stage of *Puccinia Andropogonis,* S. See Arthur 1899, 1900. Arth. & Holw. 1901. Kellerm. Jour. Myc. **9:** 10. 14 Feb. 1903. Arth. Jour. Myc. **10:** 11, 20. 30 Jan. 1904.

S. Syn. Car. 68 (42) no. 449. *d.* 1822.
Lk., L. Sp. Pl. ed. Willd. **6²:** 47. *d.* 1825.
M. A. Curtis, Bot. N. Car. 123. 1867.
Pk. Rept. N. Y. Mus. **24:** 92, 107. 1872.
Trel. Tr. Wis. Acad. **6:** 137 (33). *d.* Nov. 1884.
Arth. Bull. Iowa Agr. Coll. **1884:** 165. *d.* Jan. 1885.
Wint. & Demet. Hedw. **24:** 180 (4). Oct. 1885.

*Wint. Fung. Eur. *3222*. 1885.
Wint. Hedw. **24**: 256. Dec. 1885.
Burrill, Bull. Ill. Lab. **2**: 233. *d*. 1885 and Rept. Ill. Ind. Univ. **12**: 146. *d*. 1885.
Halsted, Bull. Iowa Agr. Coll. **1886**: 58. 1887.
De Toni in Sacc. Syll. **7**: 814. *d*. 28 Oct. 1888.
*Kellerm. & Swingle, Kansas Fungi *28*. 1 Aug. 1889.
Webber, Bull. Nebr. Exp. Sta. **1**: 333 (63). 18 Dec. 1889.
Webber, Am. Nat. **24**: 177. *d*. Feb. 1890.
Webber, Rept. Nebr. Agr. **1889**: 211 (71). 1890.
*Roum. Fung. Gall. *5514*. 1891.
Roum. Rev. Myc. **13**: 5. 1 Jan. 1891.
Woods, Bot. Surv. Nebr. 2: 38. 15 April 1893.
Carl. Bot. Gaz. **18**: 453. 25 Dec. 1893.
Tracy & Earle, Bull. Miss. Exp. Sta. 34: 90. May 1895.
Tracy & Earle, Bull. Miss. Exp. Sta. 38: 138. May 1896.
Underw. & Earle, Bull. Ala. Exp. Sta. 80: 210. 28 June 1897.
Snyder, Proc. Ind. Acad. **1896**: 217. 1897.
Tubeuf-Smith, Diseases of Plants 411. 1897.
Hume, Proc. Davenport Acad. **7**: 252. 12 May 1899.
Barthol. Tr. Kans. Acad. **16**: 190. June 1899.
Arth. Science II. **10**: 565. 20 Oct. 1899.
Arth. Bot. Gaz. **29**: 272. 30 April 1900.
Bubak, Oest. Bot. Zeit. **50**: 320. Sept. 1900.
Arth. & Holw. Bull. Univ. Iowa **5**: 181. *d*. May 1901.
Earle in Mohr, Contr. U. S. Nat. Herb. **6**: 193. 31 July 1901.
Garrett, Tr. Kans. Acad. **18**: 147. 1903.
Uredo Chelonei, Spreng.
Spreng. in L. Syst. Veg. 16 ed. **4**[1]: 572. *d*. 1827.
Cæoma pentstemoniatum, S.
S. Syn. Am. Bor. 292 no. 2864. 1834.
Aecidium pentstemoniatum, S.
S. Syn. Am. Bor. 309. 1834.
Pk. Rept. N. Y. Mus. **29**: 77. 1878.
*Ell. & Ev. N. A. F. *1813*. 1887.

Aecidium Pentastemonis, S., var. **Mimuli**, Wint.
Wint. & Demet. Hedw. **24**: 180 (4). Oct. 1885.
*Wint. Fung. Eur. *3223*. 1885.
Wint. Hedw. **24**: 256. Dec. 1885.
Gall. Bull. U. S. Agr. Veg. Pathol. 8: 56. 1889.

Aecidium Periclymeni, Schum.

NOTE. The *Aecidium* of this name in Europe is considered to belong to *Puccinia Festucæ*, Plowr. See Syd. Mon. Ured. 1: 752. 1 Nov. 1903. Klebahn, Rostpilze 290. 1904.

*Ell. N. A. F. *1020*. 1883.
Arth. Bull. Iowa Agr. Coll. **1884**: 167. Jan. 1885.

Aecidium Petalostemonis, Kellerm. & Carl.

NOTE. This is probably the æcidial stage of *Uropyxis Petalostemonis*, (Farl.) De Toni. See Ell. & Ev. N. A. F. *1845*. 1887.

Kellerm. & Carl. Tr. Kans. Acad. **10**: 91. 1887.
Hume, Proc. Davenport Acad. **7**: 252. 12 May 1899.

Aecidium Petersii, B. & C.
See ***Aecidium pedatatum***, S.

Aecidium Phaceliæ, Pk.

NOTE. Sydow 1902 suggests that this may belong to *Puccinia Phaceliæ*, Syd. & Holw.

Pk. Bull. Torr. Bot. Club **11**: 50. *d.* May 1884.
Hark. Bull. Cal. Acad. **2**: 440. 16 June 1887.
Halsted, Bull. Iowa Agr. Coll. **1888**: 113, 116. April 1888.
*Ell. & Ev. N. A. F. *2218.* Feb. 1889.
Cke, Grev. **20**: 110. June 1892.
Sacc. Bull. Soc. Bot. Belg. **31²**: 225. *d.* 1892.
Sacc. Syll. **11**: 220. *d.* July 1895.
McClatchie in Reid's Hist. Pasadena 616. 1895.
McClatchie, Proc. S. Cal. Acad. **1**: 372. 5 June 1897.
Hume, Proc. Davenport Acad. **7**: 252. 12 May 1899.
Tracy & Earle in Greene, Pl. Baker. **1**: 19. 22 Feb. 1901.
Syd. Mon. Ured. **1**: 314. 15 Nov. 1902.
*Syd. Uredineen *1800.* 1903.
Cockerell, Jour. Myc. **10**: 51. 19 March 1904.

Aecidium Phaseolorum, Auct. Amer.

NOTE. See *Aecidium* on *Amphicarpæa* and *Aecidium* on *Phaseolus* under *Aecidium* on *Leguminosæ.*

Aecidium Phlogis, Arth.
See ***Aecidium Giliæ,*** Pk. *Phlox divaricata.*
See ***Aecidium Polemonii,*** Pk. *Phlox pilosa.*

Aecidium Phlogis, Ell. & Ev.
See ***Aecidium Giliæ,*** Pk.

Aecidium Phrymae, Halsted.
Halsted, Jour. Myc. **2**: 52. *d.* May 1886.
De Toni in Sacc. Syll. **7**: 816. *d.* 28 Oct. 1888.
Pound, Bot. Surv. Nebr. 3: 10. 18 June 1894.
Freeman, Minn. Bot. Studies II. 5: 559. 20 July 1901.

Aecidium Physalidis, Burrill.
See ***Aecidium Solani,*** Mont.

Aecidium Physalidis, Pk.

NOTE. This name which so far as we know occurs only in the citation below probably refers to the aecidium of *Puccinia Physalidis*, Pk., which is perhaps the same as *Aecidium Solani*, Mont.; but authors are not agreed on that point.

Stuart, Proc. Ind. Acad. **1901**: 284. 1902.

Aecidium Pimpinellæ, Auct. Amer.
See ***Aecidium Osmorrhizæ,*** Pk.

Aecidium Pini, Auct. Amer. p. p.

NOTE. Besides citations under cross references given below there are the following references to *Aecidium Pini* in North America. Some relate to corticolous and some to acicolous forms, but their development has not been studied in this country. In Europe *Aecidium Pini* has been separated into a number of forms, the acicolous being in general connected with species of *Coleosporium* and the corticolous with species of *Cronartium.* For details see Klebahn, Rostpilze 358, 372, 377. 1904.

In this country *Coleosporium Senecionis* appears to be rare and is not accompanied, so far as known, by any *Aecidium* on leaves of *Pinus;* nor has it been ascertained whether the common species of *Cronartium* on *Myrica* is connected with the common form of *Aecidium Pini* on *Pinus rigida* with which it is often found growing. It should be remarked that the common

Aecidium in the latter case is acicolous and not like the corresponding European form corticolous.

We have arranged the following references under three heads: those where the *Aecidium* is reported on bark, those on leaves and lastly miscellanea. Probably some of the references properly belong to certain of the species already given here as cross references.

Corticolous forms.

See also ***Aecidium cerebrum***, (Pk.) Diet.
Aecidium deformans, Mayr.
Aecidium filamentosum, (Pk.).
Aecidium Harknessii, (Moore) Diet.
Aecidium piriforme, (Pk.).

Peridermium Pini, Auct. Amer. p. p.
M. A. Curtis, Bot. N. Car. 124. 1867. p. p.
Ell. in Cat. Pl. N. J. 505. 1889. *Pinus rigida*, *P. inops*.

Acicolous forms.

See also ***Aecidium carneum***, (Bosc).
Aecidium orientale, (Cke.) Diet.

On ***Pinus rigida***.

Peridermium oblongisporium, Fckl.
Thm. Mitth. forstl. Versuchs. Oest. **2**: 315 (19). *d.* 1880.
Peridermium Pini, var. ***acicolum***, Auct. Amer.
Klebahn, Abh. Nat. Verein Bremen **10**: 151. 1887, 1889.
*Seymour & Earle, E. F. *223*. 1 Feb. 1893.
Peridermium Pini, Auct. Amer. p. p.
*Ell. & Ev. N. A. F. *2222*. Feb. 1889.
*Kellerm. Ohio Fungi *104*. *d.* 14 Feb. 1903.
Kellerm. Jour. Myc. **9**: 12, 19. *d.* 14 Feb. 1903.
Peridermium acicolum, Underw. & Earle.
Underw. & Earle, Bull. Torr. Bot. Club **23**: 400 *d.* 25 Oct. 1896.

On ***Pinus***, sp. indet.

Aecidium Pini, S. Car. 456.
S. Syn. Car. 69 (43) no. 456. 1822.
Peridermium Pini, Auct. Amer. p. p.
Herbst, Fungal Fl. Lehigh Valley 174. *d.* 1899.

Miscellanea.

Aecidium Pini, Auct. Amer. p. p.
Watt, Can. Nat. & Geol. II. **2**: 391. Oct. 1865.
Peridermium Pini, Auct. Amer., p. p.
Sprague, Proc. Boston Soc. **5**: 329. 1856.
Russell, Am. Nat. **2**: 568, 569. Jan. 1869.
?Frost in Cat. Pl. Amherst 84. 1875. *Abies*.
?Cobb, List Pl. Amherst 39. 1887.
Vize, Grev. **5**: 110. Mar. 1877. *P. insignis*.
Hark. & Moore, Cat. Pac. Fung. 27. Feb. 1880. *P. insignis*.
Thm. Mittheil. forstl. Versuchs. Oest. **2**: 310 (14). *d.* 1880.
Patterson, Bull. U. S. Agr. Pl. Industry 8: 10. 3 Feb. 1902. *P. mitis*.

Aecidium Pini, var. **Ephedræ**, B. & C.
See ***Aecidium Ephedræ***, Diet.

Aecidium piratum, S.

NOTE. Under *Aecidium piratum* are given the references to the Aecidium of *Gymnosporangium macropus*, but, as the names *Aecidium piratum* and *Aecidium penicillatum*, the latter being in fact the name of a European species not found in North America, have been confused by some American writers, some of the following references may belong to other species.

S. Syn. Am. Bor. 309. 1834.
Am. Agriculturist **27**: 454. *f. 1, 2.* Dec. 1868.
?Pk. in Hayden's Rept. U. S. Surv. **6**: 792. 1873.
Thax. Proc. Am. Acad. **22**: 262, 265. Jan. 1887 and Centralbl. Bact. **1**: 432, 434. 1887.
?Nelson, Rept. Wyo. Exp. Sta. **10**: (36). 1900.
Cæoma piratum, S.
S. Syn. Am. Bor. 294 no. 2896. *d.* 1834.
Roestelia lacerata, Auct. Amer. p. p.
B. Grev. **3**: 59 (101). Dec. 1874. p. p.
*Thm. Myc. Univ. *732.* 1877.
*Rav. Fung. Am. *481.* 1881.
?Pk. Rept. N. Y. Mus. **33**: 38. Oct. 1883.
?Ell. in Cat. Pl. N. J. 504. 1889.
Mayr, Waldungen von Nordamer. 139, 434. 1890.
Roestelia penicillata, Auct. Amer. p. p.
Farl. Anniv. Mem. Boston Soc. 30. 1880.
*Ell. N. A. F. *1086 a, b, d.* 1883.
Trel. Tr. Wis. Acad. **6**: 138 (34). Nov. 1884.
Arth. Bull. Iowa Agr. Coll. **1884**: 168. Jan. 1885.
Burrill, Bull. Ill. Lab. **2**: 240. *d.* 1885 and Rept. Ill. Ind. Univ. **12**: 150. *d.* 1885.
Farl. Bot. Gaz. **11**: 240, 241. Sept. 1886.
Bessey, Am. Pomol. Soc. **1885**: 43. 1886.
Thax. Proc. Am. Acad. **22**: 265. Jan. 1887 and Centralbl. Bact. **1**: 434. 1887.
Brendel, Flora Peoriana 2 ed. 69. 1887.
Gall. Rept. Mo. Hort. Soc. **29**: 295. *f. A.* 1887.
Scribner, Rept. U. S. Agr. **1886**: 135. 1887.
Scribner, Bot. Gaz. **13**: 16. Jan. 1888.
Thax. Bot. Gaz. **14**: 163, 171. July 1889.
Roestelia pirata, Thax.
Thax. Proc. Am. Acad. **22**: 269. Jan. 1887 and Centralbl. Bact. **1** 460. 1887.
Seymour, Tr. Am. Hort. Soc. **4**: 155 (4). 7 April 1887.
*Kellerm. & Swingle, Kansas Fungi *19.* 1 May 1889.
Thax. Bot. Gaz. **14**: 164, 166, 171. July 1889.
Gall. Bull. U. S. Agr. Veg. Pathol. 8: 58. 1889.
Gall. Rept. U. S. Agr. **1888**: 378. *pl. 11, f. 1. pl. 12, f. 1–3.* 1889.
Farl. Gard. & For. **3**: 627. 24 Dec. 1890.
Pearson in Gall. Bull. U. S. Agr. Veg. Pathol. 11: 46. 1890.
Gall. Rept. U. S. Agr. **1889**: 413. 1890.
Pammel, Bull. Iowa Exp. Sta. 13: 41. *f. x.* May 1891.
Pammel, Jour. Myc. **7**: 102. April 1892.
*Ell. & Ev. N. A. F. *2713.* May 1892.
Millsp. Bull. W. Va. Exp. Sta. 24: 508. June 1892.
Davis, Tr. Wis. Acad. **9**: 162. 21 Aug. 1893.
Jones, Rept. Vt. Exp. Sta. **1892**: 83. 1893.
Underw. Proc. Ind. Acad. **1893**: 56. Aug. 1894.
Fischer, Hedw. **34**: 4. *f. 8.* 15 Feb. 1895.
?Tracy & Earle, Bull. Miss. Exp. Sta. 34: 91. May 1895.

Pammel, Proc. Iowa Acad. **1894**: 206. 1895.
Pammel & Carver, Proc. Iowa Acad. **3**: 143. 1896.
Underw. & Earle, Bull. Ala. Exp. Sta. 80: 218. 28 June 1897.
*Syd. Uredineen *1195*. Feb. 1898.
Barthol. Tr. Kans. Acad. **16**: 192. June 1899.
Earle, Bull. Ala. Exp. Sta. 106: 168. Nov. 1899.
Quaintance, Rept. Ga. Exp. Sta. **13**: 357. Jan. 1901.

Aecidium piriforme, (Pk.) n. n.

NOTE. See also *Aecidium cerebrum*, (Pk.) Diet.

Peridermium piriforme, Pk.
Pk. Bull. Torr. Bot. Club. **6**: 13. *d.* Feb. 1875.
Thm. Mittheil. forstl. Versuchs. Oest. **2**: 311 (15) *d.* 1880.
De Toni in Sacc. Syll. **7**: 835. *d.* 28 Oct. 1888.
Klebahn, Ber. Deutsch. Bot. Ges. **8**: (69). 29 Dec. 1890.
Tubeuf-Smith, Diseases of Plants 414. 1897.

Aecidium Pirolæ, P. in Gmel.
See ***Thecopsora? Pirolæ,*** Karst.

Aecidium pirolatum, S.
See ***Chrysomyxa Pirolæ,*** Rostr.

Aecidium Plantaginis, Ces.

NOTE. According to cultures by Arthur, Bot. Gaz. **35**: 17. 20 Jan. 1903 this is the æcidial stage of *Uromyces Aristidæ*, Ell. & Ev. See also Klebahn, Rostpilze 325. 1904.

*Rav. Fung. Am. *483*. 1881.
Wint. & Demet. Hedw. **24**: 180 (4). Oct. 1885.
Burrill, Bull. Ill. Lab. **2**: 232. *d.* 1885 and Rept. Ill. Ind. Univ. **12**: 145. *d.* 1885.
*Ell. & Ev. N. A. F. *1829*. 1887.
De Toni in Sacc. Syll. **7**: 813. *d.* 28 Oct. 1888.
Kelsey, Jour. Myc. **5**: 80. June 1889.
Gall. Bull. U. S. Agr. Veg. Pathol. 8: 56. 1889.
Tracy & Earle, Bull. Miss. Exp. Sta. 34: 90. May 1895.
Atk. Bull. Cornell Univ. **3**: 21. 25 June 1897.
Underw. & Earle, Bull. Ala. Exp. Sta. 80: 210. 28 June 1897.
Diet. in Engler & Prantl, Pflanzenfam. 1^{1**}: 77. 1897.
Tubeuf-Smith, Diseases of Plants 411. 1897.
Nelson, Rept. Wyo. Exp. Sta. **10**: (36). 1900.
*Shear, Ell. & Ev. Fung. Columb. *1475*. May 1901.
Earle in Mohr, Contr. U. S. Nat. Herb. **6**: 193. 31 July 1901.
Arth. Bot. Gaz. **35**: 18. 20 Jan. 1903.

Aecidium podophyllatum, S.
See ***Aecidium Podophylli,*** S.

Aecidium Podophylli, S.

NOTE This Aecidium is followed by, and intimately associated with *Puccinia Podophylli*, S. to which it evidently belongs.

Muhl. Cat. Pl. Am. Sept. 1 ed. 104. 1813. 2 ed. 107. 1818.
S. Syn. Car. 66 (40) no. 435. *d.* 1822.
Spreng. in L. Syst. Veg. 16 ed. 4^1: 568. *d.* 1827.
Fr. S. M. **3**: 512. 1832.
Bon. Abh. Nat. Ges. Halle **5**: 216 (50). 1860.
M. A. Curtis, Bot. N. Car. 123. 1867.
Pk. Rept. N. Y. Mus. **23**: 59. *d.* 1872.
Pk. Rept. N. Y. Mus. **24**: 107. 1872.
*Ell. N. A. F. *258*. 1879.

*Rav. Fung. Am. *482*. 1881.
Bundy, Geol. Wis. 1873-79, **1**: 400. 1883.
Trel. Tr. Wis. Acad. **6**: 134 (30). Nov. 1884.
Arth. Bull. Iowa Agr. Coll. **1884**: 167. Jan. 1885.
Cragin, Bull. Wash. Lab. **1**: 68. Jan. 1885.
Wint. & Demet. Hedw. **24**: 180 (4). Oct. 1885.
Brendel, Flora Peoriana 2 ed. 69. 1887.
Tracy & Earle, Bull. Miss. Exp. Sta. 34: 90. May 1895.
Jones, Oberlin College Lab. Bull. 9: 4. 15 June 1898.
Herbst, Fungal Fl. Lehigh Valley 175. *d*. 1899.
Puccinia aurea, Spreng.
Spreng. in L. Syst. Veg. 16 ed. **4**[1]: 568. *d*. 1827.
Cæoma podophyllatum, S.
S. Syn. Am. Bor. 293 no. 2888: 1834.
Aecidium podophyllatum, S.
S. Syn. Am. Bor. 309. 1834.
Lea, Cat. Pl. Cin. 71. 1849.
Watt, Can. Nat. & Geol. II. **2**: 391. Oct. 1865.
B. Grev. **3**: 59 (101). Dec. 1874.
*Thm. Myc. Univ. *626*. 1877.
Pk. Rept. N Y. Mus. **29**: 76. 1878.
James, Jour. Cin. Soc. **2**: 67 (26). April 1879.

Aecidium Polemonii, Pk.

NOTE. See note under *Aecidium Giliæ*. Pk.

Pk. Bot. Gaz. **4**: 230. *d*. Nov. 1879.
*Ell. N. A. F. *1008*. 1883.
Trel. Tr. Wis. Acad. **6**: 134 (30). Nov. 1884.
Arth. Bull. Iowa Agr. Coll. **1884**: 167. Jan. 1885.
Burrill, Bull. Ill. Lab. **2**: 235. *d*. 1885 and Rept. Ill. Ind. Univ. **12**: 147. *d*. 1885.
De Toni in Sacc. Syll. **7**: 806. *d*. 28 Oct. 1888.
Webber, Bull. Nebr. Exp. Sta. **1**: 333 (63). 18 Dec. 1889.
Gall. Bull. U. S. Agr. Veg. Pathol. 8: 56. 1889.
Webber, Rept. Nebr. Agr. **1889**: 211 (71). 1890.
*Pazschke, Fung. Eur. *3637*. 1890.
Tracy & Earle, Bull. Miss. Exp. Sta. 34: 90. May 1895.
Tubeuf-Smith, Diseases of Plants 411. 1897.
?Aecidium Phlogis, Arth. p. p.
Arth. Bull. Iowa Agr. Coll. **1884**: 167. Nov. 1884. *Phlox pilosa*.

Aecidium polygalinum, Pk.

Pk. Bot. Gaz. **6**: 275. *d*. Oct. 1881.
*Ell. N. A. F. *1009*. 1883.
Trel. Tr. Wis. Acad. **6**: 135 (31). Nov. 1884.
Arth. Bull. Iowa Agr. Coll. **1884**: 167. Jan. 1885.
*Wint. Fung. Eur. *3319*. 1885.
De Toni in Sacc. Syll. **7**: 780. *d*. 28 Oct. 1888.
*Syd. Uredineen *1396*. 1899.

Aecidium Polygoni, Chev.

NOTE. Burrill, Bull. Ill. Lab. **2**: 164. *d*. 1885 and Rept. Ill. Ind. Univ. **12**: 107. *d*. 1885 describes an *Aecidium* on *Polygonum* as the æcidial stage of *Uromyces Polygoni*, (P.) Fckl. It is also described in European works. It is probably more frequent than these references seem to indicate. See also Barthol., Ell. & Ev. Fung. Columb. *1897*. 28 Dec. 1903.

Barthol. Tr. Kans. Acad. **16**: 191. June 1899.

Aecidium porosum, Pk.

See ***Aecidium album***, Clint. and ***Aecidium*** on ***Leguminosæ***.

Aecidium Prenanthis, P.
*Ell. & Ev. N. A. F. *3054.* April 1894.

Aecidium Prenanthis, Auct. Amer. p. p.

NOTE. See note under *Aecidium Compositarum*, var. *Prenanthis*, Auct. Amer.

See ***Aecidium Compositarum*** on ***Helenium.***
See ***Aecidium Compositarum,*** var. ***Lactucæ***, Burrill.

Aecidium Proserpinacæ, B. & C.
B. Grev. **3:** 60 (102) no. 577. *d.* Dec. 1874.
De Toni in Sacc. Syll. **7:** 780. *d.* 28 Oct. 1888.
*Ell. & Ev. N. A. F. *2711.* May 1892.
Underw. & Earle, Bull. Ala. Exp. Sta. 80: 210. *d.* 28 June 1897.
Tubeuf-Smith, Diseases of Plants 410. 1897.
Earle in Mohr, Contr. U. S. Nat. Herb. **6:** 193. 31 July 1901.

Aecidium pseudo-balsameum, Diet. & Holw.
Holw. Erythea **7:** 98. *d.* 31 Oct. 1899.
Sacc. & Syd. Syll. **16:** 346. *d.* 1 Feb. 1902.
Blasdale in Davy, Bull. U. S. Agr. Pl. Industry 12: 75. 1902.

Aecidium Psoraleæ, Pk.
Pk. in Parry, Am. Nat. **8:** 215 (25). *d.* April 1874.
Burrill, Bull. Ill. Lab. **2:** 225 *d.* 1885 and Rept. Ill. Ind. Univ. **12:** 142. *d.* 1885.
Kellerm. & Carl. Tr. Kans. Acad. **10:** 92. 1887.
Brendel, Flora Peoriana 2 ed. 69. 1887.
*Ell. & Ev. N. A. F. *1818.* 1887.
De Toni in Sacc. Syll. **7:** 785. *d.* 28 Oct. 1888.
Webber, Bull. Nebr. Exp. Sta. **1:** 333 (63). 18 Dec. 1889.
Webber, Rept. Nebr. Agr. **1889:** 211 (71). 1890.
*Ell. & Ev. Fung. Columb. *60.* 1893.
*Ell. & Ev. Fung. Columb. 557. 1894.
Tubeuf-Smith, Diseases of Plants 410. 1897.
Hume, Proc. Davenport Acad. **7:** 246, 252. 12 May 1899.
Barthol. Tr. Kans. Acad. **16:** 191. June 1899.
*Griffiths, West Am. Fung. *67.* 22 March 1902.
*Barthol., Ell. & Ev. Fung. Columb. *1803.* 28 Dec. 1903.
Aecidium Orobi, Auct. Amer. p. p.
B. Grev. **3:** 61 (103). Dec. 1874.
Cke. Ann. N. Y. Acad. **1:** 182. May 1878.

Aecidium Pteleæ, B. & C.

NOTE. Stated as the result of cultures to be the æcidial stage of *Puccinia Windsoriæ*, S. See Arthur, 1899, 1900 and Kellerman, Jour. Mye. **9:** 10. 14 Feb. 1903. Klebahn, Rostpilze 286. 1904.

B. Grev. **3:** 60 (102) no. 579. *d.* Dec. 1874.
*Wint. Fung. Eur. *3020.* 1884.
Wint. & Demet. Hedw. **24:** 180 (4). Oct. 1885.
Burrill, Bull. Ill. Lab. **2:** 225. *d.* 1885 and Rept. Ill. Ind. Univ. **12:** 141. *d.* 1885.
Roum. Rev. Myc. **8:** 196. 1 Oct. 1886.
*Roum. Fung. Gall. *3859.* 1886.
Brendel, Flora Peoriana 2 ed. 69. 1887.
*Ell. & Ev. N. A. F. *1819.* 1887.
De Toni in Sacc. Syll. **7:** 784. *d.* 28 Oct. 1888.
Gall. Bull. U. S. Agr. Veg. Pathol. 8: 56. 1889.
Underw. Proc. Ind. Acad. **1893:** 50. Aug. 1894.
Atk. Bull. Cornell Univ. **3:** 21. 25 June 1897.

Underw. & Earle, Bull. Ala. Exp. Sta. 80: 210. *d.* 28 June 1897.
Snyder, Proc. Ind. Acad. **1896**: 217. 1897.
Tubeuf-Smith, Diseases of Plants 410. 1897.
Arth. Science II. **10**: 565. 20 Oct. 1899.
Earle in Mohr, Contr. U. S. Nat. Herb. **6**: 194. 31 July 1901.
Patterson, Bull. U. S. Agr. Pl. Industry 8: 8. 3 Feb. 1902.
Arth. Bot. Gaz. **35**: 16. 20 Jan. 1903.

Aecidium pulcherrimum, Rav.
See ***Aecidium Rhamni,*** P. in Gmel.

Aecidium punctatum, P.
See also under ***Aecidium Ranunculacearum,*** Auct. Amer. p. p.
Muhl. Cat. Pl. Am. Sept. 1 ed. 104. 1813. 2 ed. 107. 1818.
Trel. Tr. Wis. Acad. **6**: 136 (32). Nov. 1884.
*Wint. Fung. Eur. *3023.* 1884.
Arth. Bull. Iowa Agr. Coll. **1884**: 167. Jan. 1885.
Burrill, Bull. Ill. Lab. **2**: 222. *d.* 1885 and Rept. Ill. Ind. Univ. **12**: 139. *d.* 1885.
Ell. N. A. F. 1423 (note). *Thalictrum.*
*Wint. Fung. Eur. *3422.* 1886.
*Roum. Fung. Gall. *3927.* 1886.
Roum. Rev. Myc. **9**: 23. 1 Jan. 1887.
Wint. Hedw. **26**: 24. Feb. 1887.
Webber, Bull. Nebr. Exp. Sta. **1**: 333 (63). *d.* 18 Dec. 1889. *Thalictrum.*
Gall. Bull. U. S. Agr. Veg. Pathol. 8: 56. 1889.
Lagerh. Hedw. **29**: 175. Aug. 1890.
*Syd. Uredineen *300.* 1890.
Webber, Rept. Nebr. Agr. **1889**: 211 (71). *d.* 1890. *Thalictrum.*
Detmers, Bull. Ohio Exp. Sta. 44: 139. Sept. 1892.
*Ell. & Ev. Fung. Columb. *194.* 1893.
Kellerm. & Werner, Geol. Ohio **7**^{2}: 346. Jan. 1895.
Richards, Proc. Am. Acad. **31**: 262. *pl. 1, f. 12.* 1896.
Underw. & Earle, Bull. Ala. Exp. Sta. 80: 210. 28 June 1897.
Diet. in Engler & Prantl. Pflanzenfam. 1^{1**}: 76. *f. 50 C, D.* 1897.
Tubeuf-Smith, Diseases of Plants 409. 1897.
Barthol. Tr. Kans. Acad. **16**: 191. June 1899.
Orton, Rept. Vt. Exp. Sta. **12**: 166. Dec. 1899 and Contr. Bot. Vt. 7: 166. Dec. 1899.
Pound & Clements, Bot. Surv. Nebr. 5: 24. 30 March 1901.
Freeman, Minn. Bot. Studies II. 5: 555. 20 July 1901. *Thalictrum.*
Earle in Mohr, Contr. U. S. Nat. Herb. **6**: 194. 31 July 1901.
*Barthol., Ell. & Ev. Fung. Columb. *1504.* Dec. 1901.
Aecidium Thalictri, Auct. Amer. p. p.
*Ell. N. A. F. *1004.* 1883.
Farl. Proc. Am. Acad. **18**: 75. July 1883.
Aecidium quadrifidum, D C.
Pk. Rept. N. Y. Mus. **23**: 59. 1872.
Pk. Rept. N. Y. Mus. **24**: 105. 1872.
Frost in Cat. Pl. Amherst 85. 1875.
Pk. Rept. N. Y. Mus. **29**: 76. 1878.
Bundy, Geol. Wis. 1873–79, **1**: 400. 1883.
Cobb, List Pl. Amherst 40. 1887.
Cæoma hepaticatum, S.
S. Syn. Am. Bor. 293 no. 2878. *d.* 1834.
Aecidium hepaticatum, S.
S. Syn. Am. Bor. 309. 1834.
Arth. Bull. Iowa Agr. Coll. **1884**: 166. Jan. 1885.
*Ell. & Ev. N. A. F. *1828.* 1887.

Bolley, Am. Mo. Micr. Jour. **10**: 175, 176, 178. *f.* 7. and *pl. f.* 5. Aug. 1889 and Jour. Myc. **5**: 167. Sept. 1889.
*Underw. & Cook, Illustr. Fungi *53*. Sept. 1889.
Davis, Tr. Wis. Acad. **9**: 161. 21 Aug. 1893.
Underw. Proc. Ind. Acad. **1893**: 50. Aug. 1894.
*Ell. & Ev. Fung. Columb. *269*. 1894.
Pk. Rept. N. Y. Mus. **49**: 35 (21). 5 Nov. 1897.
Underw. Moulds 233. *pl. 6, f. 17*. 1899.

Aecidium Purpusiorum, Henn.
Henn. Hedw. Beibl. **42**: (189). *d.* 4 July 1903. Mexico.

Aecidium pustulatum, M. A. Curtis.

NOTE. Arthur, 1904, gives an account of cultures showing this to be the æcidial stage of *Puccinia Andropogi*, Auct. Amer. p.p. which he calls *Puccinia pustulata*, (M. A. Curtis) Arth.

M. A. Curtis in Pk. Rept. N. Y. Mus. **23**: 60. *d.* 1872.
Pk. Rept. N. Y. Mus. **24**: 106. 1872.
Pk. Rept. N. Y. Mus. **29**: 77. 1878.
*Ell. N. A. F. *224*. 1879.
*Thm. Myc. Univ. *1424*. 1879.
Trel. Tr. Wis. Acad. **6**: 134 (30). Nov. 1884.
Arth. Bull. Iowa Agr. Coll. **1884**: 167. Jan. 1885.
*Wint. Fung. Eur. *3320*. 1885.
Burrill, Bull. Ill. Lab. **2**: 237. *d.* 1885 and Rept. Ill. Ind. Univ. **12**: 148. *d.* 1885.
Kellerm. & Carl. Tr. Kans. Acad. **10**: 92. 1887.
De Toni in Sacc. Syll. **7**: 822. *d.* 28 Oct. 1888.
*Roum. Fung. Gall. *4834*. 1889.
Roum. Rev. Myc. **11**: 63. 1 April 1889.
*Kellerm & Swingle, Kansas Fungi *29*. 1 Aug. 1889.
Webber, Bull. Nebr. Exp. Sta. **1**: 334 (64). 18 Dec. 1889.
Webber, Rept. Nebr. Agr. **1889**: 212 (72). 1890.
Farlow & Seymour, Host Index 95. Sept. 1890.
Detmers, Bull. Ohio Exp. Sta. 44: 140. Sept. 1892.
Detmers, Bull. Ohio Exp. Sta. tech. ser. **1**: 178. April 1893.
Carl. Bot. Gaz. **18**: 454. 25 Dec. 1893.
Underw. Proc. Ind. Acad. **1893**: 50. Aug. 1894.
*Carl. Ured. Amer. *46*. 1894.
*Syd. Uredineen *850*. 1894.
Diet. in Engler & Prantl, Pflanzenfam. **1^{1**}**: 77. 1897.
Henn. Hedw. **37**: 272. 25 Oct. 1898.
Barthol. Tr. Kans. Acad. **16**: 191. June 1899.
Freeman, Minn. Bot. Studies II. 5: 558. 20 July 1901.
Arth. Jour. Myc. **10**: 17, 20. 30 Jan. 1904.
Aecidium Hamiltoniæ, Thm.
Thm. Bull. Torr. Bot. Club **6**: 350. *d.* Oct. 1879.
De Toni in Sacc. Syll. **7**: 822. *d.* 28 Oct. 1888.

Aecidium quadrifidum, D C.
See ***Aecidium punctatum,*** P.

Aecidium Ranunculacearum, Auct. Amer. p. p.

NOTE. The Aecidia on American species of *Ranunculus*, with the exception of *Aecidium Ranunculi*, S., are in great confusion. The name *Aecidium Ranunculacearum* has been rather indefinitely applied to forms occurring on *Ranunculus*, *Anemone* and *Thalictrum*. In Europe *Aecidium Ranunculacearum* has been segregated into forms connected with *Puccinia perplexans*, Plowr., *Uromyces Dactylidis*, Otth and *Uromyces Poæ*, Rabh. See Syd. Mon. Ured. 1: 719. 1 Nov. 1903, Klebahn, Rostpilze 274, 323, 324. 1904. Some of our *Aecidia* on *Ranunculus* seem to be the same as European forms

but as the references in American literature are uncertain we have arranged them by hosts.

The references to *Aecidium Ranunculacearum* on *Anemone* with the exception of the form connected with *Puccinia simillima*, Arth. are also doubtful. An *Aecidium* on *Anemone Caroliniana* is described by Sydow as the æcidial stage of *Puccinia cohæsa*, Long, *q. v.*

For the *Aecidia* on species of *Thalictrum* see *Aecidium Aikeni*, Syd., *Aecidium Sommerfeltii*, Joh., *Aecidium Thalictri-flavi*, (D C.) Wint. and *Aecidium punctatum*, P.

Aecidium Ranunculacearum, Auct. Amer. p. p. **Miscellanea.**
Watt, Can. Nat. & Geol. II. **2**: 391. Oct. 1865.
M. A. Curtis, Bot. N. Car. 124. 1867.
Russell, Am. Nat. **2**: 565. Jan. 1869.
Cke. Handbook 539. *d.* 1871.
Pk. Rept. N. Y. Mus. **24**: 92, 106. 1872.
Frost in Cat. Pl. Amherst 85. 1875.
Pk. Rept. N. Y. Mus. **29**: 76. 1878.
Johnson, Bull. Minn. Acad. **1**: 366. 1880.
Bundy, Geol. Wis. 1873–79, **1**: 400. 1883.
Cobb, List Pl. Amherst 40. 1887.
De Toni in Sacc. Syll. **7**: 776. *d.* 28 Oct. 1888. p. p.
Bennett, Cat. Pl. R. I. 89. 1888.
Cæoma ranunculaceatum, S. Am. Bor. p. p.
S. Syn. Am. Bor. 293 no. 2875. 1834.

Aecidium Ranunculacearum, Auct. Amer. p. p.

On **Anemone cylindrica.**

*Ell. & Ev. N. A. F. *2214*. Feb. 1889.
Webber, Bull. Nebr. Exp. Sta. **1**: 334 (64). 18 Dec. 1889.
Webber, Rept. Nebr. Agr. **1889**: 212 (72). 1890.
Cockerell, Zoe **4**: 282. Oct. 1893.
Patterson, Bull. U. S. Agr. Pl. Industry 8: 8. 3 Feb. 1902.

Aecidium Ranunculacearum, Auct. Amer. p. p.

On **Anemone multifida.**

NOTE. An *Aecidium* on this host is described by Bubak as the æcidial stage of *Puccinia gigantispora*, Bubak. See Syd. Mon. Ured. **1**: 537. *d.* 15 May 1903.

Kelsey, Jour. Myc. **5**: 80. June 1889.

Aecidium Ranunculacearum, Auct. Amer. p. p.

On **Anemone nemorosa.**

NOTE. Other references to *Aecidia* on this host may be found under *Aecidium Anemones*, P. and *Aecidium leucospermum*, D C. also under *Aecidium punctatum*, P. It is probable that many if not all of the references given below properly belong to one or the other of those species.

*Ell. N. A. F. *1003 a*. 1883.
Arth. Bull. Iowa Agr. Coll. **1884**: 167. Jan. 1885.
Ell. & Ev. Jour. Myc. **1**: 86. July 1885.
Kellerm. & Carl. Tr. Kans. Acad. **10**: 92. 1887.
Anderson, Jour. Myc. **6**: 121. *d.* 6 Jan. 1891.
Freeman, Minn. Bot. Studies II. 5: 555. 20 July 1901.
Davis, Tr. Wis. Acad. **14**: 88. Sept. 1903.

Aecidium Ranunculacearum, Auct. Amer. p. p.

On **Anemone Pennsylvanica.**

NOTE. Cultures by Arthur show an *Aecidium* on this host to belong to *Puccinia simillima*, Arth. See Arth. Bot. Gaz. **34**: 18. 16 July 1902 and **35**: 20, 23. 20 Jan. 1903. Klebahn, Rostpilze 286. 1904.

Trel. Tr. Wis. Acad. **6**: 136 (32). Nov. 1884.
Arth. Bull. Iowa Agr. Coll. **1884**: 167. Jan. 1885.
Burrill, Bull. Ill. Lab. **2**: 221. *d.* 1885 and Rept. Ill. Ind. Univ. **12**: 139. *d.* 1885.
Snyder, Proc. Ind. Acad. **1896**: 217. 1897.
Freeman, Minn. Bot. Studies II. 5: 555. 20 July 1901.
Arth. Bot. Gaz. **35**: 20, 23. 20 Jan. 1903.

Aecidium Ranunculacearum, Auct. Amer. p. p.
On **Anemone Richardsoni.**

Trel. in Sacc., Pk. & Trel., Harriman Alaska Exp. **5**: 36. 5 April 1904.

Aecidium Ranunculacearum, Auct. Amer. p. p.
On **Anemone Virginiana.**

Arth. Bull. Iowa Agr. Coll. **1884**: 167. Jan. 1885.
Orton, Rept. Vt. Exp. Sta. **11**: 218. Sept. 1898 and Contr. Bot. Vt. 2: 20. Sept. 1898.

Aecidium Ranunculacearum, Auct. Amer. p. p. On **Anemone,** sp. indet.

Hume, Proc. Davenport Acad. **7**: 252. 12 May 1899.

Aecidium Ranunculacearum, Auct. Amer. p. p. On **Anemonella.**

NOTE. See also under *Aecidium Thalictri-flavi,* (D C.) Wint.

Detmers, Bull. Ohio Exp. Sta. 44: 140. Sept. 1892.

Aecidium Ranunculacearum, Auct. Amer. p. p. On **Delphinium.**

NOTE. See also *Aecidium Delphinii,* Barthol.

Ell. & James in Holzinger, Contr. U. S. Nat. Herb. **3**: 276. 23 Nov. 1895.
Hume, Proc. Davenport Acad. **7**: 252. 12 May 1899.

Aecidium Ranunculacearum, Auct. Amer. p. p. On **Isopyrum.**

Arth. Bull. Iowa Agr. Coll. **1884**: 167. Jan. 1885.
*Pazschke, Fung. Eur. *3836.* Nov. 1892. (With note.)

Aecidium Ranunculacearum, Auct. Amer. p. p.
On **Ranunculus abortivus.**

See ***Aecidium Ranunculi,*** S.

Aecidium Ranunculacearum, Auct. Amer. p. p.
On **Ranunculus abortivus.**

Freeman, Minn. Bot. Studies II. 5: 555. 20 July 1901.

Aecidium Ranunculacearum, Auct. Amer. p. p.
On **Ranunculus Cymbalaria.**

*Ell. & Ev. N. A. F. *2213.* Feb. 1889.
Kelsey, Jour. Myc. **5**: 80. June 1889.
Anderson, Jour. Myc. **6**: 121. 6 Jan. 1891.
Carl. Tr. Kans. Acad. **13**: 51. 1893.
Hume, Proc. Davenport Acad. **7**: 252. 12 May 1899.
Nelson, Rept. Wyo. Exp. Sta. **10**: (36). 1900.
*Griffiths, West Am. Fung. *293.* 22 March 1902.
Cockerell, Jour. Myc. **10**: 51. 19 March 1904.

Aecidium Ranunculacearum, Auct. Amer. p. p.
On **Ranunculus fascicularis.**

Tracy & Earle, Bull. Miss. Exp. Sta. 34: 90. May 1895.

Aecidium Ranunculacearum, Auct. Amer. p. p.

On **Ranunculus,** sp. indet.

Halsted, Bull. Iowa Agr. Coll. **1888:** 117. April 1888.
Ell. in Cat. Pl. N. J. 505. 1889.
Trel. in Sacc., Pk. & Trel., Harriman Alaska Exp. **5:** 36. 5 April 1904.

Aecidium Ranunculacearum, var. **Clematidis,** Cke.
See ***Aecidium Clematidis,*** D C.

Aecidium Ranunculi, S.

NOTE. In Jour. Myc. **10:** 18, 20. 30 Jan. 1904, Arthur gives an account of cultures showing this to be the æcidial stage of *Puccinia Eatoniæ,* Arth. n. sp. on *Eatonia Pennsylvanica.*

S. Syn. Car. 67 (41) no. 440. *d.* 1822.
Pk. Rept. N. Y. Mus. **23:** 59. *d.* 1872.
Pk. Rept. N. Y. Mus. **24:** 105. 1872.
Pk. Rept. N. Y. Mus. **29:** 76. 1878.
Wint. Hedw. **22:** 69. May 1883.
Farl. Proc. Am. Acad. **18:** 75. July 1883.
Trel. Tr. Wis. Acad. **6:** 136 (32). Nov. 1884.
Arth. Bull. Iowa Agr. Coll. **1884:** 168. Jan. 1885.
Wint. & Demet. Hedw. **24:** 181 (5). Oct. 1885.
Burrill, Bull. Ill. Lab. **2:** 222. *d.* 1885 and Rept. Ill. Ind. Univ. **12:** 139. *d.* 1885.
Brendel, Flora Peoriana 2 ed. 69. 1887.
De Toni in Sacc. Syll. **7:** 776. *d.* 28 Oct. 1888. p. p.
Webber, Bull. Nebr. Exp. Sta. **1:** 334 (64). 18 Dec. 1889.
Ell. in Cat. Pl. N. J. 505. 1889.
Gall. Bull. U. S. Agr. Veg. Pathol. 8: 56. 1889.
Webber, Rept. Nebr. Agr. **1889:** 212 (72). 1890.
Anderson, Jour. Myc. **6:** 121. *d.* 6 Jan. 1891.
Detmers, Bull. Ohio Exp. Sta. 44: 139. Sept. 1892.
*Pazschke, Fung. Eur. *3837.* Nov. 1892.
Detmers, Bull. Ohio Exp. Sta. tech. ser. **1:** 177. April 1893.
Underw. Proc. Ind. Acad. **1893:** 50. Aug. 1894.
*Syd. Uredineen *900.* Aug. 1894.
Kellerm. & Werner, Geol. Ohio **7**[2]**:** 346. Jan. 1895.
Tracy & Earle, Bull. Miss. Exp. Sta. 34: 90. May 1895.
Stevens, Rept. Ohio Acad. **4:** 20. 1896.
Diet. in Engler & Prantl, Pflanzenfam. **1**[1**]**: 76. 1897.
Henn. Hedw. **37:** 272. 25 Oct. 1898.
Herbst, Fungal Fl. Lehigh Valley 176. *d.* 1899.
Kellerm. Jour. Myc. **8:** 57. *d.* 30 June 1902.
*Kellerm. Ohio Fungi. *62. d.* July 1902.

Cæoma ranunculaceatum, S. Am. Bor. p. p.
S. Syn. Am. Bor. 293 no. 2875. 1834.

Aecidium Ranunculacearum, Auct. Amer. p. p.
B. Grev. **3:** 60 (102). Dec. 1874.
*Ell. N. A. F. *1003 b.* 1883.
Arth. & Holw. Bull. Minn. Surv. **3:** 31. 1 Oct. 1887.
Patterson, Bull. U. S. Agr. Pl. Industry 8: 8. 3 Feb. 1902.

Aecidium Ravenelii, Diet.
See ***Aecidium carneum,*** (Bosc.) n. n.

Aecidium recedens, Arth.

NOTE. See also *Aecidium Solidaginis,* S and compare notes in Ell. N. A. F. 1018. 1883 and Burrill, Bull. Ill. Lab. **2:** 230. 1885.

Arth. Bull. Torr. Bot. Club **31:** 7. *d.* 19 Jan. 1904.

Aecidium Solidaginis, Auct. Amer. p. p.
*Barthol., Ell. & Ev. Fung. Columb. *1804*. 28 Dec. 1903.

Aecidium Rhamni, P. in Gmel.

NOTE. This is the æcidial stage of *Puccinia coronata*, Cda. The *Aecidium crassum* reported on *Phlox* in Fortieth Parallel Survey, 1871, is evidently an error.

Muhl. Cat. Pl. Am. Sept. 1 ed. 104. 1813. 2 ed. 107. 1818.
*Ell. & Ev. N. A. F. *1821*. 1887.
Davis, Tr. Wis. Acad. **9**: 182. 21 Aug. 1893.
Tracy & Earle, Bull. Miss. Exp. Sta. 34: 90. May 1895.
Pk. Rept. N. Y. Mus. **50**: 115. 28 March 1898.
*Ell. & Ev. Fung. Columb. *1299*. May 1898.

Aecidium crassum, P.

*Rav. Fung. Car. **1**: 92. 1852.
Watt. Can. Nat. & Geol. II. **2**: 390. Oct. 1865.
M. A. Curtis, Bot. N. Car. 124. 1867.
Cke. Proc. Portland Soc. **1**: 180. *d*. 1869.
Cke. Handbook 538. *d*. 1871.
Pk. Rept. N. Y. Mus, **25**: 91. Sept. 1873.
Pk. Rept. N. Y. Mus. **29**: 76. 1878.
Arth. Bull. Iowa Agr. Coll. **1884**: 165. Jan. 1885.
Ell. in Cat. Pl. N. J. 505. 1889.
Gall. Bull. U. S. Agr. Veg. Pathol. 8: 55. 1889.
Anderson, Jour. Myc. **6**: 121. 6 Jan. 1891.

Aecidium pulcherrimum, Rav.

B. Grev. **3**: 61 (103) no. 583. *d*. Dec. 1874.
*Rav. Fung. Am. *726*. 1882.
De Toni in Sacc. Syll. **7**: 785. *d*. 28 Oct. 1888.
*Ell. & Ev. N. A. F. *2712*. May 1892.
Lagerh. Tromsoe Mus. Aarshefter **17**: 104. *d*. 1895.
Sacc. & Syd. Syll. **14**: 374. *d*. 20 Aug. 1899.

Aecidium Rivinæ, B. & C.

B. & C. Jour. Linn. Soc. **10**: 358. *d*. 1869. West Indies.
Bres., Henn. & Magn. in Engl. Jahrb. **17**: 491. 1893.
Heller, Muhlenbergia **1**: 20. 9 Aug. 1901.

Aecidium rœstelioides, Ell. & Ev.

NOTE. See note under *Aecidium tuberculatum*, Ell. & Kellerm.

Ell. & Ev. Jour. Myc. **1**: 93. *d*. July 1885.
Ludwig, Centralbl. Bact. **1**: 692. June 1887.
Hark. Bull. Cal. Acad. **2**: 440. 16 June 1887.
Halsted, Bull. Iowa Agr. Coll. **1888**: 117. April 1888.
De Toni in Sacc. Syll. **7**: 782. *d*. 28 Oct. 1888.
Cockerell, Zoe **4**: 282. Oct. 1893.
McClatchie in Reid's Hist. Pasadena 616. 1895.
McClatchie, Proc. S. Cal. Acad. **1**: 372. 5 June 1897.
Patterson, Bull. U. S. Agr. Pl. Industry 8: 8. 3 Feb. 1902.
Arth. Bull. Torr. Bot. Club. **31**: 7. 19 Jan. 1904.

Aecidium roseum, Diet. & Holw.

Holw. Bot. Gaz. **24**: 36. *d*. 31 July 1897. Mexico.
Lindau & Syd. Hedw. **37**: xvii. 9 April 1898. [Beiblatt no. 7.]
Sacc. & Syd. Syll. **14**: 380. *d*. 20 Aug. 1899.

Aecidium rubellum, P. in Gmel.

NOTE. According to accounts by Arthur, 1899, 1900, 1902, this is the æcidial stage of *Puccinia Phragmitis*, (Schum.) Koern. now *Puccinia rubella*, (P.) Arth. See also Bates, Jour. Myc. 9: 220. 31 Dec. 1903 and Klebahn, Rostpilze 284. 1904.

Cke. Handbook 544. *d.* 1871.
Bennett, Cat. Pl. R. I. 89. 1888.
Arth. Science II. **10**: 564. 20 Oct. 1899.
Arth. Bot. Gaz. **29**: 270. 30 April 1900.
Arth. Bot. Gaz. **34**: 17. f. 16 July 1902.

Aecidium Rumicis, Hoffm.
S. Syn. Car. 66 (40) no. 433. 1822.
M. A. Curtis, Bot. N. Car. 124. 1867.
Frost in Cat. Pl. Amherst 85. 1875.
Cobb, List Pl. Amherst 40. 1887.

Cæoma rubellatum, Lk.
S. Syn. Am. Bor. 292 no. 2862. 1834.

Aecidium Rubi, Torrey.
See ***Gymnoconia interstitialis,*** (Schl.) Lagerh.

Aecidium on **Ruellia.**

NOTE. See also *Aecidium lateripes*, Kellerm. See under *Puccinia lateripes*, B. & Rav.

Carl. Tr. Kans. Acad. **14**: 44. 1896.

Aecidium Rumicis, S. Syn. Car. p. p.
See ***Aecidium rubellum,*** P.

Aecidium Rumicis, S. Syn. Car. p. p.
See ***Aecidium Grossulariæ,*** D C.

Aecidium Rusbyi, Gerard.
Gerard, Bull. Torr. Bot. Club. **8**: 34. *d.* March 1881.
De Toni in Sacc. Syll. **7**: 832. *d.* 28 Oct. 1888.

Aecidium rutilum, Bon.
See ***Cystopus Ipomœæ-panduranæ,*** Farl.

Aecidium sagittatum, S.
See ***Aecidium pedatatum,*** S.

Aecidium Salicorniæ, Fung. Columb.
See ***Aecidium Chenopodii-fruticosi,*** D C.

Aecidium on **Salvia.**

NOTE. In Jour. Myc. **9**: 227. 31 Dec. 1903 Kellerman describes *Aecidium caulicolum*, Kellerm. as the æcidial stage of *Puccinia caulicola*, Tracy & Gall. *q. v.*

Aecidium sambuciatum, S.
See ***Aecidium Sambuci,*** S.

Aecidium Sambuci, S.

NOTE. According to cultures by Arthur and by Kellerman this is the æcidial stage of a *Puccinia*, now *Puccinia Sambuci*, (S) Arth. See Arth. Jour. Myc. **8**: 55. 30 June 1902. Arth. Bot. Gaz. **35**: 15. 20 Jan. 1903. Kellerm. Jour. Myc. **9**: 7–9. 14 Feb. 1903. Syd. Mon. Ured. **1**: 669. 1 Nov. 1903. Klebahn, Rostpilze 316. 1904.

Muhl. Cat. Pl. Am. Sept. 1 ed. 104. 1813. 2 ed. 107. 1818.
S. Syn. Car. 67 (41) no. 441. *d.* 1822.
Lk., L. Sp. Pl. ed. Willd. **6²**: 53. *d.* 1825.
M. A. Curtis, Bot. N. Car. 124. 1867.
Pk. Rept. N. Y. Mus. **22**: 93. 1869.
Pk. Rept. N. Y. Mus. **24**: 106. 1872.
Frost in Cat. Pl. Amherst 85. 1875.
Farl. Bull. Bussey Inst. **2**: 226. Jan. 1878.
*Ell. N. A. F. *1002.* 1883.
Trel. Tr. Wis. Acad. **6**: 136 (32). Nov. 1884.

Arth. Bull. Iowa Agr. Coll. **1884**: 168. Jan. 1885.
Burrill, Bull. Ill. Lab. **2**: 228. *d.* 1885 and Rept. Ill. Ind. Univ. **12**: 143. *d.* 1885.
Bessey, Am. Pomol. Soc. **1885**: 43. 1886.
Cobb, List Pl. Amherst 40. 1887.
Kellerm. & Carl. Tr. Kans. Acad. **10**: 92. 1887.
De Toni in Sacc. Syll. **7**: 796. *d.* 28 Oct. 1888.
Webber, Bull. Nebr. Exp. Sta. **1**: 334 (64). 18 Dec. 1889.
Gall. Bull. U. S. Agr. Veg. Pathol. 8: 56. 1889.
Webber, Rept. Nebr. Agr. **1889**: 212 (72). 1890.
Humphrey, Rept. Mass. Exp. Sta. **8**: 223. 1891.
Pammel, Agr. Sci. **7**: 26. Jan. 1893.
Detmers, Bull. Ohio Exp. Sta. tech. ser. **1**: 174. April 1893.
*Pazschke, Fung. Eur. *3937*. Feb. 1894.
Small & Vail, Mem. Torr. Bot. Club. **4**: 200. April 1894.
Underw. Proc. Ind. Acad. **1893**: 50. Aug. 1894.
Kellerm. & Werner, Geol. Ohio **7**^{2}: 346. Jan. 1895.
Stevens, Rept. Ohio Acad. **4**: 20. 1896.
Stevens, Rept. Ohio Acad. **5**: 66. 1897.
Atk. Bull. Cornell Univ. **3**: 21. 25 June 1897.
Underw. & Earle, Bull. Ala. Exp. Sta. 80: 211. 28 June 1897.
Davis, Tr. Wis. Acad. **11**: 167. Aug. 1897.
*Seymour & Earle, E. F. *475*. 15 Oct. 1897.
Tubeuf-Smith, Diseases of Plants 411. 1897.
Orton, Rept. Vt. Exp. Sta. **11**: 211. Sept. 1898 and Contr. Bot. Vt. 2: 13. Sept. 1898.
Barthol. Tr. Kans. Acad. **16**: 191. June 1899.
Herbst, Fungal Fl. Lehigh Valley 175. *d.* 1899.
Earle in Mohr, Contr. U. S. Nat. Herb. **6**: 194. 31 July 1901.
Kellerm. Ohio Nat. **2**: 136. *d.* Nov. 1901.
*Kellerm. Ohio Fungi *3. d.* 1901.
Patterson, Bull. U. S. Agr. Pl. Industry 8: 8. 3 Feb. 1902.
Cæoma sambuciatum, S.
S. Syn. Am. Bor. 294 no. 2897. 1834.
Aecidium sambuciatum, S.
S. Syn. Am. Bor. 309. 1834.
Watt, Can. Nat. & Geol. II. **2**: 391. Oct. 1865.
B. Grev. **3**: 60 (102). Dec. 1874.
Pk. Rept. N. Y. Mus. **29**: 77. 1878.
*Rav. Fung. Am. *725*. 1882.

Aecidium sanguinolentum, Lindr.
See ***Aecidium Geranii-maculati,*** S.

Aecidium Saniculæ, Carm.

NOTE. *Aecidium Saniculæ*, Carm. of Europe is considered to be the æcidium of *Puccinia Saniculæ*, Grev. In North America the latter species, at least according to later European mycologists, does not occur; but the *Aecidium* called by American mycologists *Aecidium Saniculæ* may be connected with *Puccinia Marylandica*, Lindr. or possibly with *Puccinia microica*, Ell.

Pk. Rept. N. Y. Mus. **30**: 54. Sept. 1878.
Underw. & Earle, Bull. Ala. Exp. Sta. 80: 211. 28 June 1897.
Earle in Mohr, Contr. U. S. Nat. Herb. **6**: 194. 31 July 1901.

Aecidium Sarcobati, Pk.
Pk. Bot. Gaz. **6**: 240. *d.* July 1881.
Hark. Bull. Cal. Acad. **1**: 162. 7 March 1885.
*Ell. & Ev. N. A. F. *1822*. 1887.
De Toni in Sacc. Syll. **7**: 820. *d.* 28 Oct. 1888.

Nelson, Rept. Wyo. Exp. Sta. **10**: (36). 1900.
*Griffiths, West Am. Fung. *359*. 21 May 1902.
Ricker, Jour. Myc. **8**: 126. 14 Oct. 1902.
Peridermium gracile, Hark.
Hark. Bull. Cal. Acad. **1**: 36 (16). *d*. Feb. 1884.

Aecidium sclerothecioides, Ell. & Ev.

NOTE. See also *Aecidium Compositarum*, var. *Senecionis*, Auct. Amer.

Ell. & Ev. Am. Nat. **31**: 428. *d*. May 1897.
Lindau & Syd. Hedw. **37**: xvii. 9 April 1898. [Beiblatt no. 7.]
Sacc. & Syd. Syll. **14**: 377. *d*. 20 Aug. 1899.

Aecidium Scrophulariæ, N. A. F.
See ***Aecidium tenue***, S.

Aecidium Senecionis, Auct. Amer.
See ***Aecidium Compositarum***, var. ***Senecionis***, Auct. Amer.

Aecidium Sii-latifolii, Wint.

NOTE. It is uncertain with what teleutosporic form the *Aecidium* in references given below is connected. For a statement of the connection of the *Aecidium* on *Sium latifolium* of Europe with *Uromyces Scirpi*, (Cast.) Lagerh., = *Uromyces lineolatus*, (Desm.) Schrt, see Klebahn, Rostpilze 325. 1904.

Trel. Tr. Wis. Acad. **6**: 137 (33). Nov. 1884.
Lindr. Acta Soc. Fauna et Fl. Fennica **22**[1]: 177. 1902.

Aecidium Silphii, (Burrill) Syd.
*Syd. Uredineen *1546*. April 1901.
Aecidium Compositarum, Auct. Amer. p. p.
Trel. Tr. Wis. Acad. **6**: 137 (33). Nov. 1884.
Arth. Bull. Iowa Agr. Coll. **1884**: 165. Jan. 1885.
Kellerm. & Carl. Tr. Kans. Acad. **10**: 91. 1887.
Gall. Bull. U. S. Agr. Veg. Pathol. 8: 55. 1889.
Davis, Tr. Wis. Acad. **9**: 161. 21 Aug. 1893.
Underw. & Earle, Bull. Ala. Exp. Sta. 80: 208. 28 June 1897.
Barthol. Tr. Kans. Acad. **16**: 187. June 1899.
*Shear, Ell. & Ev. Fung. Columb. *1478*. May 1901.
Earle in Mohr, Contr. U. S. Nat. Herb. **6**: 192. 31 July 1901.
Aecidium Compositarum, var. ***Silphii***, Burrill.
Burrill, Bull. Ill. Lab. **2**: 231. *d*. 1885 and Rept. Ill. Ind. Univ. **12**: 144. *d*. 1885.
Wint. & Demet. Hedw. **24**: 179 (3). Oct. 1885.
De Toni in Sacc. Syll. **7**: 798. *d*. 28 Oct. 1888.
*Vestergren, Micr. sel. *626*. May 1903.

Aecidium smilacinatum, S.
See ***Aecidium Smilacis***, S.

Aecidium Smilacis, S.

NOTE. The *Aecidium* on *Smilax herbacea* and *S. hispida* is said by Arthur to belong to *Puccinia amphigena*, Diet. It differs from the authentic specimen of *Aecidium Smilacis*, S. which we have examined, in not causing verruciform distortions of the leaves but, as far as the microscopic characters of the spores are concerned, they appear to be the same; for although in the Schweinitzian specimen they were hardly mature, they at least were smaller and wanting in the thickening of the apical wall found in *Aecidium macrosporum*, Pk. See also Syd. Mon. Ured. 1: 742. 1 Nov. 1903. Klebahn, Rostpilze 276. 1904. Arth. Jour. Myc. 10: 11. 30 Jan. 1904.

S. Syn. Car. 69 (43) no. 452. 1822.
M. A. Curtis, Bot. N. Car. 124. 1867.

Kellerm. Bull. Wash. Lab. **1**: 75. Jan. 1885 and Tr. Kans. Acad. **9**: 81. 1885.
Burrill, Bull. Ill. Lab. **2**: 238. *d.* 1885 and Rept. Ill. Ind. Univ. **12**: 149. *d.* 1885.
Kellerm. & Carl. Tr. Kans. Acad. **10**: 92. 1887.
De Toni in Sacc. Syll. **7**: 829. *d.* 28 Oct. 1888.
Webber, Bull. Nebr. Exp. Sta. **1**: 334 (64). 18 Dec. 1889.
Webber, Rept. Nebr. Agr. **1889**: 212 (72). 1890.
Tracy & Earle, Bull. Miss. Exp. Sta. 34: 90. May 1895.
Tubeuf-Smith, Diseases of Plants 411. 1897.
Barthol. Tr. Kans. Acad. **16**: 191. June 1899.
Patterson, Bull. U. S. Agr. Pl. Industry 8: 8. 3 Feb. 1902.
Arth. Bot. Gaz. **35**: 20. 20 Jan. 1903.
Cæoma smilacinatum, S.
Lk., L. Sp. Pl. ed. Willd. 6^2: 43. *d.* 1825.
S. Syn. Am. Bor. 292 no. 2859. 1834.
Uredo Smilacis, S.
Spreng. in L. Syst. Veg. 16 ed. 4^1: 572. *d.* 1827.
Aecidium smilacinatum, S.
S. Syn. Am. Bor. 309. 1834.
Aecidium verrucosum, Bon.
Bon. Abh. Nat. Ges. Halle **5**: 210 (44) *d.* 1860.

Aecidium Smilacis, N. A. F. 2708.
See ***Aecidium macrosporum***, Pk.

Aecidium Solani, Mont.

NOTE. Whether American writers are correct in referring the *Aecidium* on *Physalis* in North America to *Aecidium Solani*, Mont. 1852, is doubtful. The *Aecidium* on *Physalis*, whatever it may be called, is generally considered to belong to *Puccinia Physalidis*, Pk.

In Harkness, 1885, and Seymour, 1896, given below, the host is *Solanum*. Harkness considered his *Aecidium* to belong to *Puccinia Solani*, Cke. 1878, but there is an earlier *Puccinia Solani*, B. & C. 1853, based on specimens from Surinam in Herb. Schweinitz.

Trel. Tr. Wis. Acad. **6**: 134 (30). Nov. 1884.
Hark. Bull. Cal. Acad. **1**: 162. 7 March 1885.
Burrill, Bull. Ill. Lab. **2**: 235. *d.* 1885 and Rept. Ill. Ind. Univ. **12**: 147. *d.* 1885.
*Ell. & Ev. N. A. F. *3147*. Nov. 1894.
*Ell. & Ev. Fung. Columb. *558*. 1894.
*Seymour, Pringle's Mex. Fungi *6*. 1 Sept. 1896.
Aecidium Physalidis, Burrill.
Burrill, Bot. Gaz. **9**: 190. *d.* Dec. 1884.

Aecidium solidaginicolum, Ell. & Ev.
Ell. & Ev. Erythea **1**: 206. *d.* 2 Oct. 1893.

Aecidium Solidaginis, S.

NOTE. For connection of *Aecidium* on *Solidago* with *Puccinia Caricis-Solidaginis*, Arth. see Arth. 1903, Kellerm. 1903. See also Kellerm. Jour. Myc. **9**: 228, 237. 31 Dec. 1903. See also Syd. Mon. Ured. **1**; 666. 1 Nov. 1903 and Klebahn, Rostpilze 305. 1904.

Likewise for *Uromyces Solidagini-Caricis*, Arth. see Arth. Jour. Myc. **10**: 15, 20. 30 Jan. 1904.

The greater part of the references given below properly belong to Schweinitz's species but some, especially from older writings, cannot now be verified.

See also *Aecidium solidiginicolum*, Ell. & Ev. and *Aecidium recedens*, Arth.

Muhl. Cat. Pl. Am. Sept. 1 ed. 104. 1813. 2 ed. 107. 1818.
S. Syn. Car. 68 (42) no. 446. *d.* 1822.
Lk., L. Sp. Pl. ed. Willd. **6**^{2}: 52. *d.* 1825.
Hitchcock, Cat. Pl. Amherst 59. 1829.
Hitchcock, Cat. Pl. Mass. 644. 1833. 2 ed. 645 (125). 1835.
*Griffiths, West Am. Fung. *362.* 21 May 1902.
Arth. Bot. Gaz. **35**: 21. 20 Jan. 1903.
*Barthol. Ell. & Ev. Fung. Columb. *1707, 1708.* Feb. 1903.
Garrett, Tr. Kans. Acad. **18**: 147. 1903.

Cæoma asteratum, Lk. p. p.
Lk., L. Sp. Pl. ed. Willd. **6**^{2}: 51. *d.* 1825.
S. Syn. Am. Bor. 292 no. 2870. 1834.

Aecidium asteratum, S. p. p.
S. Syn. Am. Bor. 309. 1834.
Atk. Bull. Cornell Univ. 3: 21. 25 June 1897.

Aecidium Compositarum, Auct. Amer. p. p.
Trel. Tr. Wis. Acad. **6**: 137 (33). Nov. 1884.
Arth. Bull. Iowa Agr. Coll. **1884**: 165. Jan. 1885.
Arth. & Holw. Bull. Minn. Surv. 3: 31. 1 Oct. 1887.
Anderson, Jour. Myc. **5**: 82. June 1889.
Detmers, Bull. Ohio Exp. Sta. 44: 140. Sept. 1892.
Detmers, Bull. Ohio Exp. Sta. tech. ser. **1**: 178. April 1893.
Stevens. Rept. Ohio Acad. **4**: 20. 1896.
Herbst, Fungal Fl. Lehigh Valley 176. Dec. 1899.
Pound & Clements, Bot. Surv. Nebr. 5: 24. 30 March 1901.
Patterson, Bull. U. S. Agr. Pl. Industry 8: 8. 3 Feb. 1902.

Aecidium Asterum, Auct. Amer. p. p.
Burrill, Bull. Ill. Lab. **2**: 230. *d.* 1885 and Rept. Ill. Ind. Univ. **12**: 144. *d.* 1885.
Gall. Bull. U. S. Agr. Veg. Pathol. 8: 55. 1889.
Detmers, Bull. Ohio Exp. Sta. 44: 138. Sept. 1892.
Halsted, Rept. N. J. Exp. Sta. **1892**: 347. 1893.
*Shear, N. Y. Fungi *128.* 1893.
Underw. Proc. Ind. Acad. **1893**: 49. Aug. 1894.
Kellerm. & Werner, Geol. Ohio **7**^{2}: 345. Jan. 1895.
Underw. Proc. Ind. Acad. **1894**: 154. Oct. 1895.
Stevens, Rept. Ohio, Acad. **4**: 20. 1896.
Underw. & Earle, Bull. Ala. Exp. Sta. 80: 208. 28 June 1897.
Tubeuf-Smith, Diseases of Plants 411. 1897.
Claassen, Rept. Ohio Acad. **5**: 68. 1897.
*Ell. & Ev. Fung. Columb. *1391.* May 1899.
Barthol. Tr. Kans. Acad. **16**: 186. June 1899.
Orton, Rept. Vt. Exp. Sta. **12**: 165. Dec. 1899 and Contr. Bot. Vt. 165. Dec. 1899.
Claassen, Rept. Ohio Acad. **7**: 43. 1899.
Earle in Greene, Pl. Baker. **2**: 2. 25 March 1901.
Freeman, Minn. Bot. Studies II. 5: 557. 20 July 1901.
Earle in Mohr, Contr. U. S. Nat. Herb. **6**: 192. 31 July 1901.

Aecidium Compositarum, var. ***Solidaginis,*** Ell.
*Ell. N. A. F. *1018c.* 1883. (With note.)
Burrill, Bull. Ill. Lab. **2**: 230. 1885 and Rept. Ill. Ind. Univ. **12**: 144. 1885. (Note.)
Wint. & Demet. Hedw. **24**: 180 (4). Oct. 1885.

Aecidium Solidaginis, Auct. Amer. p. p.
See ***Aecidium recedens,*** Arth.

Aecidium Sommerfeltii, Joh.

NOTE. There are at least two species of *Aecidium* on species of *Thalictrum* in North America; *Aecidium Sommerfeltii*, Joh. 1884 based on *Cæoma Thalictri*, Sommf. 1826 and *Aecidium Thalictri-flavi*, Wint. based on *Aecidium Ranunculacearum*, var. *Thalictri-flavi*, DC. 1815, from which *Aecidium Thalictri*, Grev. 1823 appears not to differ.

We use the name *Aecidium Sommerfeltii*, Joh. for the species which occurs on *Thalictrum alpinum* in Greenland and the northern and higher parts of America and possibly on some other hosts.

American mycologists have as a rule followed De Toni who refers to *Aecidium Sommerfeltii* all *Aecidia* on *Thalictrum* in Europe and North America, but others have used the name *Aecidium Thalictri* in the sense in which we here use the name *Aecidium Thalictri-flavi*.

Of the *Aecidia* on *Thalictrum Fendleri*, referred variously to *Aecidium Sommerfeltii* and *Aecidium Thalictri*, the specimens we have seen seem to be *Aecidium Thalictri-flavi;* but in some cases genuine *Aecidium Sommerfeltii* appears to have been found on that host.

According to Juel Oefv. K. Vet.-Akad. Foerh. **52**: 383. 1885, *Aecidium Sommerfeltii* is the *Aecidium* of *Puccinia septentrionalis*, Juel on *Polygonum viviparum*. See also Syd. Mon. Ured. **1**: 575. 15 May 1903, Klebahn, Rostpilze 321. 1904.

On **Thalictrum alpinum.**

Rostr. Meddelelser om Groenl. **3**: 536. 1888.
De Toni in Sacc. Syll. **7**: 775. *d.* 28 Oct. 1888.
Rostr. Meddelelser om Groenl. **3**: 604. 1891.

On **Thalictrum Fendleri.**

?Cockerell, Zoe. **4**: 283. Oct. 1893.
Henn. Hedw. **37**: 272. 25 Oct. 1898.
Hume, Proc. Davenport Acad. **7**: 252. 12 May 1899.
Cockerell, Jour. Myc. **10**: 51. 19 March 1904.

Miscellanea.

?Hume, Proc. Davenport Acad. **7**: 252. 12 May 1899. *T. sparsiflorum.*
?Blasdale in Davy, Bull. U. S. Agr. Pl. Industry **12**: 75. 1902. *Aquilegia.*

Aecidium Sommerfeltii, Auct. Amer. p. p.
See ***Aecidium Thalictri-flavi,*** (DC.) Wint.

Aecidium Sphæralceæ, Ell. & Ev.

NOTE. The species of *Aecidium* on *Malvaceæ*, some of which were described from dried specimens, appear to have been unduly multiplied. See *Aecidium Malvastri*, Ell. & Tracy, *Aecidium interveniens*, (Pk.), *Aecidium Napææ*, Arth. & Holw. and *Aecidium Callirrhoes*, Ell. & Kellerm. See Arth. Bull. Torr. Bot. Club **31**: 7. 19 Jan. 1904. See also Syd. Mon. Ured. **1**: 478. 15 May 1903.

Ell. & Ev. Bull. Torr. Bot. Club **22**: 364. *d.* 31 Aug. 1895.
Sacc. Hedw. **35**: xvii. 25 Feb. 1896. [Reportorium no. 7.]
*Ell. & Ev. N. A. F. *3345*. Feb. 1896.
*Ell. & Ev. Fung. Columb. *871*. April 1896.

Aecidium splendens, Wint.
See ***Aecidium Crotonopsidis,*** Burrill.

Aecidium Spragueæ, Hark.

NOTE. Described by the author as the æcidial stage of *Uromyces Spragueæ*, Hark.

Hark. Bull. Cal. Acad. **1**: 36 (16). *d.* Feb. 1884.
De Toni in Sacc. Syll. **7**: 557. *d.* 28 Oct. 1888.

Aecidium Statices, Desm.

NOTE. The teleutosporic stage is *Uromyces Limonii,* (DC.) Lev.

Pk. Rept. N. Y. Mus. **29**: 77. 1878.
*Ell. N. A. F. *242.* 1879.
Hark. Bull. Cal. Acad. **1**: 162. 7 March 1885.
*Ell. & Ev. Fung. Columb. *658.* 24 April 1895.
Tracy & Earle, Bull. Miss. Exp. Sta. 34: 91. May 1895.
Aecidium Limonii, Pk.
Pk. Rept. N. Y. Mus. **23**: 60. *d.* 1872.
Pk. Rept. N. Y. Mus. **24**: 106. 1872.

Aecidium Stillingiæ, Tracy & Earle.
Tracy & Earle, Bull. Torr. Bot. Club **26**: 493. *d.* 22 Sept. 1899.
Sacc. & Syd. Syll. **16**: 346. *d.* 1 Feb. 1902.

Aecidium Tanaceti, Cockerell.
See ***Aecidium Compositarum,*** var. ***Artemisiæ,*** C. & E.

Aecidium Taraxaci, Kze. & Schm.

NOTE. Compare *Aecidium Compositarum* on *Krigia, Lactuca, Troximon.* For association of *Aecidium Taraxaci,* Kze. & Schm. with *Puccinia silvatica,* Schrt., see Klebahn, Rostpilze 302. 1904. See also Oscar Mayus, Centralbl. Bact. **10**: 714. 19 Aug. 1903.

Trel. Tr. Wis. Acad. **6**: 137 (33). Nov. 1884.

Aecidium Tenellae, Diet. & Holw.

NOTE. Originally printed *Aecidium Tonellæ,* D. & H.

Diet. Erythea **3**: 77. *d.* 1 May 1895.
Lindau & Syd. Hedw. **37**: xviii. 9 April 1898. [Beiblatt no. 7.]
Sacc. & Syd. Syll. **14**: 384. *d.* 20 Aug. 1899.

Aecidium tenue, S.

NOTE. This is believed to be the æcidial stage of *Puccinia tenuis,* (S.) Burrill, with which it is intimately associated on leaves of *Eupatorium ageratoides.* See Burrill 1885 and Syd. Mon. Ured. **1**: 82. 30 June 1902
Specimens reported under this name on several other species of *Eupatorium,* grouped below under Miscellanea, are presumed to belong more properly to *Aecidium Compositarum,* var. *Eupatorii,* (S.) B. The teleutospores of *Puccinia tenuis,* Burrill, are reported only on *Eupatorium ageratoides.* There is a *Puccinia tenuis,* Bon. 1860. A. B. S.

S. Syn. Am. Bor. 309. 1834.
Pk. Rept. N. Y. Mus. **24**: 92, 107. 1872.
Pk. Rept. N. Y. Mus. **25**: 109. Sept. 1873.
Pk. Rept. N. Y. Mus. **29**: 77. 1878.
*Ell. N. A. F. *1420.* 1885.
Burrill, Bull. Ill. Lab. **2**: 181. *d.* 1885 and Rept. Ill. Ind. Univ. **12**: 117. *d.* 1885.
*Pazschke, Fung. Eur. *4141.* 1898.
Cæoma tenue, S.
S. Syn. Am. Bor. 293 no. 2889. *d.* 1834.
Aecidium Compositarum, var. ***Eupatoriæ,*** Auct. Amer. p. p.
*Ell. & Ev. Fung. Columb. *498.* 1894.
Freeman, Minn. Bot. Studies II. 5: 557. 20 July 1901.
Aecidium Scrophulariæ, N. A. F.
*Ell. & Ev. N. A. F. *1810.* 1887.

Miscellanea.

Aecidium tenue, Auct. Amer. p. p.
Arth. Bull. Iowa Agr. Coll. **1884**: 168. Jan. 1885.
Wint. & Demet. Hedw. **24**: 181 (5). Oct. 1885.
Gall. Bull. U. S. Agr. Veg. Pathol. 8: 56. 1889.

Aecidium Thalictri, Grev.
See ***Aecidium Thalictri-flavi,*** (D C.) Wint.

Aecidium Thalictri, Auct. Amer. p. p.
See ***Aecidium punctatum,*** P.

Aecidium Thalictri-flavi, (D C.) Wint.

NOTE. Assuming it to be correct that *Aecidium Thalictri-flavi,* (D C.) Wint. and *Aecidium Thalictri,* Grev. are synonyms, it should be remarked that the form on *Thalictrum flavum* is considered by Plowright, British Ured. & Ust. 181. 1889 to belong to *Puccinia persistens,* Plowr. on *Poa nemoralis,* while the form on *Thalictrum alpinum* is considered Juel, Oefv. K. Vet. Akad. Foerh. **51**: 413. 1894 to belong to *Puccinia borealis,* Juel on *Agrostis borealis.* See also Syd. Mon. Ured. **1**: 718, 719. 1 Nov. 1903, Klebahn, Rostpilze 276, 291. 1904.

Some of our references to *Aecidia* on *Thalictrum alpinum* are given under *Aecidium Sommerfeltii,* Joh. The references given below to *Aecidium Thalictri-flavi,* in absence of cultures made in this country, must be regarded as provisional. See also *Aecidium punctatum,* P. Compare also *Aecidium Aikeni,* Syd. especially with reference to citations of *Aecidium* on *Thalictrum purpurascens.*

For anatomical details of *Aecidia* on *Thalictrum* see Oscar Mayus, Centralbl. Bact. 2 Abt. **10**: 649, 706 et seq. 1903

On Thalictrum.

Kelsey, Jour. Myc. **5**: 80. June 1889.
Freeman, Minn. Bot. Studies II. 5: 555. 20 July 1901.
Patterson, Bull. U. S. Agr. Pl. Industry 8: 8. 3 Feb. 1902.

On Anemonella.

NOTE. See also under *Aecidium Ranunculacearum,* Auct. Amer. p. p.

Wint. & Demet. Hedw. **24**: 181 (5). Oct. 1885.
*Wint. Fung. Eur. *3322.* 1885.
Gall. Bull. U. S. Agr. Veg. Pathol. 8: 56. 1889.
Underw. Proc. Ind. Acad. **1894**: 151. Oct. 1895.
Aecidium Thalictri, Grev.

On Thalictrum.

Farl. Appalachia **3**: 239. Jan. 1884.
Trel. Tr. Wis. Acad. **6**: 136 (32). Nov. 1884.
Arth. Bull. Iowa Agr. Coll. **1884**: 168. Jan. 1885.
*Ell. N. A. F. *1423.* 1885.
Arth. & Holw. Bull. Minn. Surv. 3: 31. 1 Oct. 1887.
Halsted, Bull. Iowa Agr. Coll. **1886**: 58. 1887.
Halsted, Bull. Iowa Agr. Coll. **1888**: 116. April 1888.
Rostr. Meddelelser om Groenl. **3**: 604. 1891.
Davis, Tr. Wis. Acad. **9**: 161. 21 Aug. 1893.
? Cockerell, Zoe. **4**: 283. Oct. 1893.
*Ell. & Ev. Fung. Columb. *193.* 1893.
*Griffiths, West. Am. Fung. *35.* 22 March 1902.

Miscellanea.

NOTE. In Jour. Myc **8**: 126. 14 Oct. 1902 Ricker mentions an *Aecidium* on *Thalictrum occidentale* from Idaho.

Watt, Can. Nat. & Geol. II. **2**: 391. Oct. 1865.

Pk. Rept. N. Y. Mus. **24**: 92, 106. 1872.
B. Grev. **3**: 60 (102). Dec. 1874.
Pk. Rept. N. Y. Mus. **29**: 76. 1878.
*Ell. & Ev. Fung. Columb. *1390*. May 1899.
Aecidium Sommerfeltii, Auct. Amer. p. p.

On **Thalictrum.**

Webber, Bull. Nebr. Exp. Sta. **1**: 334 (64). 18 Dec. 1889.
Webber, Rept. Nebr. Agr. **1889**: 212 (72). 1890.
Nelson, Rept. Wyo. Exp. Sta. **10**: (36). 1900.
Tracy & Earle in Greene, Pl. Baker. **1**: 19. 22 Feb. 1901.
Earle in Greene, Pl. Baker. **2**: 3. 25 March 1901.

On **Anemonella.**

Detmers, Bull. Ohio Exp. Sta. 44: 139. Sept. 1892.
Kellerm. & Werner Geol. Ohio 7^2: 347. Jan. 1895.

Aecidium Tissæ, Ell. & Ev.
McClatchie, Proc. S. Calif. Acad. **1**: 372. 5 June 1897.
Ell. & Ev. Bull. Torr. Bot. Club **24**: 284. *d.* 29 June 1897.
Lindau & Syd. Hedw. **37**: xviii. 9 April 1898. [Beiblatt no. 7.]
Sacc. & Syd. Syll. **14**: 374. *d.* 20 Aug. 1899.

Aecidium Tonellæ, Diet. & Holw.
See ***Aecidium Tenellæ***, Diet. & Holw.

Aecidium trachelifoliatum, S.

NOTE. On *Helianthus* authors report also *Aecidium Compositarum*, var. *Helianthi*, Burrill, and *Aecidium Helianthi-mollis*, S.

S. Syn. Am. Bor. 309. 1834.
Pk. Rept. N. Y. Mus. **29**: 77. 1878.
Cke. Grev. **20**: 110. June 1892.
Cæoma trachelifoliatum, S.
S. Syn. Am. Bor. 292 no. 2872. *d.* 1834.

Aecidium Tracyanum, Syd.

NOTE. See also *Aecidium lateripes*, Kellerm.

Syd. Hedw. Beibl. **40**: (129). *d.* 20 Oct. 1901.
Sacc. & Syd. Syll. **16**: 1122. 1 Feb. 1902.

Aecidium transformans, (Ell.) Pazschke.
*Pazschke, Fung. Eur. *4238*. 1901.
Roestelia transformans, Ell.
Ell. in Pk. Bull. Torr. Bot. Club **5**: 3. *d.* Jan. 1874.
Farl. Bull. Bussey Inst. **2**: 225. Jan. 1878.
Farl. Anniv. Mem. Boston Soc. 27. *d.* 1880.
*Ell. N. A. F. *1088*. 1883.
Farl. Proc. Am. Acad. **20**: 315. 1885.
Farl. Bot. Gaz. **11**: 238. Sept. 1886.
Thax. Proc. Am. Acad. **22**: 269. Jan. 1887 and Centralbl. Bact. **1**: 460. 1887.
Seymour, Tr. Am. Hort. Soc. **4**: 155 (4). 7 April 1887.
Ell. in Cat. Pl. N. J. 504. 1889.
*Seymour & Earle, E. F. *247*. 1 Feb. 1893.
Hicks, Asa Gray Bull. $\mathbf{1893}^3$: 12. 1893.
Fischer, Hedw. **34**: 4. *f. 9*. Jan. 1895.
*Ell. & Ev. Fung. Columb. *1076*. 22 Dec. 1896.
Diet. Ann. Myc. **1**: 9. 30 Jan. 1903.
Rœstelia transformans, Ell., var. ***fructigena***, Thm.
*Thm. Myc. Univ. *1029*. 1878.
Thm. Flora **62**: 104. 1 March 1879.

Roum. Rev. Myc. **10**: 143. 1 July 1888.
*Roum. Fung. Gall. *4533*. 1888.

Aecidium Trifolii-repentis, Cast.

NOTE. Under this name we have placed references to *Aecidia* on *Trifolium repens* which should properly be considered to be the *Aecidium* of *Uromyces minor,* Schrt. but whether this is strictly true in all cases cannot be stated.

Thm. Nat. Can. **10**: 9. Jan. 1878.
?***Aecidium Orobi,*** Auct. Amer. p. p.
Pk. Rept. N. Y. Mus. **23**: 59. 1872.
Pk. Rept. N. Y. Mus. **24**: 107. 1872.
B. Grev. **3**: 61 (103). Dec. 1874.
Pk. Rept. N. Y. Mus. **29**: 76. 1878.
Johnson, Bull. Minn. Acad. **1**: 365. 1880.
Arth. Bull. Iowa Agr. Coll. **1884**: 167. Jan. 1885.

Aecidium Triglochinis, Diet. & Holw.
Holw. Erythea **7**: 98. *d.* 31 Oct. 1899.
Sacc. & Syd. Syll. **16**: 348. *d.* 1 Feb. 1902.

Aecidium Trillii, Burrill.
Burrill, Bot. Gaz. **9**: 190. *d.* Dec. 1884.
Burrill, Bull. Ill. Lab. **2**: 238. *d.* 1885 and Rept. Ill. Ind. Univ. **12**: 149. *d.* 1885.
De Toni in Sacc. Syll. **7**: 828. *d.* 28 Oct. 1888.
Claassen, Rept. Ohio Acad. **5**: 68. 1897.
Snyder, Proc. Ind. Acad. **1896**: 218. 1897.

Aecidium tuberculatum, Ell. & Kellerm.

NOTE. We are unable to distinguish some specimens in exsiccati issued as *Aecidium tuberculatum,* Ell. & Kellerm. from *Aecidium æstelioides,* Ell. & Ev. The original descriptions of the two differ, however. See Arth. Bull. Torr. Bot. Club 31: 7. 19 Jan. 1904.

Ell. & Kellerm. Jour. Myc. **4**: 26, *d.* March 1888.
Swingle, Jour. Myc. **4**: 27. March 1888.
De Toni in Sacc. Syll. **7**: 827. *d.* 28 Oct. 1888.
*Kellerm. & Swingle, Kansas Fungi *30*. 1 Aug. 1889.
*Ell. & Ev. N. A. F. *2893*. March 1893.
Carl. Bot. Gaz. **18**: 453. 25 Dec. 1893.
*Ell. & Ev. Fung. Columb. *500*. 1894.
*Carl. Ured. Amer. *31*. 1894.
*Syd. Uredineen *1199*. Feb. 1898.
Barthol. Tr. Kans. Acad. **16**: 191. June 1899.
Nelson, Rept. Wyo. Exp. Sta. **10**: (36). 1900.
Carl. Science II. **13**: 250. 15 Feb. 1901.
*Pazschke, Fung. Eur. *4239*. 1901.
Carl. Jour. Appl. Micr. **6**: 2111. 1903.
Arth. Bull. Torr. Bot. Club **31**: 7. 19 Jan. 1904.

Aecidium Tussilaginis, Muhl. Cat.
Muhl. Cat. Pl. Am. Sept. 1 ed. 104. 1813. 2 ed. 107. 1818.

Aecidium Urticæ, Schum.

NOTE. The teleutosporic stage is *Puccinia Caricis,* (Schum.) Reb. as established in Europe by Magnus, Schroeter and others and verified in America by Arthur, 1899, 1900, 1902, 1903 and Kellerman, 1903. See also Syd. Mon. Ured. 1: 648. 1 Nov. 1903 and Klebahn, Rostpilze 293. 1904.

M. A. Curtis, Bot. N. Car. 124. 1867.
Cke. Handbook 541. *d.* 1871.

Pk. Rept. N. Y. Mus. **24**: 92, 106. 1872.
Frost in Cat. Pl. Amherst 85. 1875.
Johnson, Bull. Minn. Acad. **1**: 296. 1877 and Rept. Minn. Surv. **5**: 85. 1877.
Pk. Rept. N. Y. Mus. **29**: 77. 1878.
*Ell. N. A. F. *267*. 1879.
Arth. Bull. Iowa Agr. Coll. **1884**: 168. Jan. 1885.
Burrill, Bull. Ill. Lab. **2**: 238. *d*. 1885 and Rept. Ill. Ind. Univ. **12**: 149. *d*. 1885.
Cobb, List Pl. Amherst 40. 1887.
De Toni in Sacc. Syll. **7**: 821. *d*. 28 Oct. 1888. p. p.
Bennett, Cat. Pl. R. I. 89. 1888.
Kelsey, Jour. Myc. **5**: 80. June 1889.
Anderson, Jour. Myc. **5**: 82. June 1889.
Webber, Bull. Nebr. Exp. Sta. **1**: 334 (64). 18 Dec. 1889.
Gall. Bull. U. S. Agr. Veg. Pathol. 8: 56. 1889.
Webber. Rept. Nebr. Agr. **1889**: 212 (72). 1890.
Williams, Bull. S. Dak. Exp. Sta. 29: 49. Dec. 1891.
*Seymour & Earle, E. F. *388*. 1 May 1893.
McClatchie in Reid's Hist. Pasadena 616. 1895.
McClatchie, Proc. S. Cal. Acad. **1**: 372. 5 June 1897.
Hume, Proc. Davenport Acad. **7**: 249. 12 May 1899.
Barthol. Tr. Kans. Acad. **16**: 192. June 1899.
Arth. Science II. **10**: 565. 20 Oct. 1899.
Arth. Bot. Gaz. **29**: 270. 30 April 1900.
Tracy & Earle in Greene, Pl. Baker. **1**: 19. 22 Feb. 1901.
Freeman, Minn. Bot. Studies II. 5: 546. 20 July 1901.
*Griffiths, West Am. Fung. *52*. 22 March 1902.
Arth. Jour. Myc. **8**: 52, 56. 30 June 1902.
Kellerm. Jour. Myc. **8**: 59. *d*. 30 June 1902.
*Kellerm. Ohio Fungi *69*. *d*. July 1902.
Arth. Bot. Gaz. **35**: 16, 22. 20 Jan. 1903.
Kellerm. Jour. Myc. **9**: 9, 10, 12, 13. 14 Feb. 1903.
Cæoma urticatum, Lk.
S. Syn. Am. Bor. 294 no. 2898. 1834.

Aecidium Uvulariæ, S.
S. Syn. Car. 69 (43) no. 453. *d*. 1822.
M. A. Curtis, Bot. N. Car. 123. 1867.
Pk. Rept. N. Y. Mus. **26**: 78. April 1874.
Wint. & Demet. Hedw. **24**: 181 (5). Oct. 1885.
De Toni in Sacc. Syll. **7**: 830. *d*. 28 Oct. 1888.
Freeman, Minn. Bot. Studies II. 5: 554. 20 July 1901.
Cæoma alliatum, Lk. p. p.
Lk., L. Sp. Pl. ed. Willd. 6^2: 43. *d*. 1825.
Uredo Uvulariæ, Spreng.
Spreng. in L. Syst. Veg. 16 ed. 4^1: 572. *d*. 1827.
Cæoma uvulariatum, S.
S. Syn. Am. Bor. 292 no. 2858. *d*. 1834.
Aecidium uvulariatum, S.
S. Syn. Am. Bor. 309. 1834.
Pk. Rept. N. Y. Mus. **29**: 77. 1878.

Aecidium uvulariatum, S.
See ***Aecidium Uvulariæ***, S.

Aecidium Valerianearum, Duby.
*Ell. & Ev. N. A. F. *2211*. Feb. 1889.

Aecidium Valerianellæ, Biv. Bernh.
Diet. Bot. Gaz. **18**: 256. *d*. 15 July 1893.

Blasdale, Asa Gray Bull **1893**[3]: 1. 1893.
Henn. Hedw. **37**: 272. *d.* 25 Oct. 1898.

Aecidium verbenicolum, Ell. & Kellerm.

NOTE. According to cultures by Arthur this is the æcidial stage of *Puccinia Vilfæ,* Arth. & Holw. which is renamed *Puccinia verbenicola,* Arth. See Arthur, 1899, 1900, 1903. See also Klebahn, Rostpilze 275. 1904.

Ell. & Kellerm. Bull. Torr. Bot. Club **11**: 114. *d.* Oct. 1884.
Kellerm. Bull. Wash. Lab. **1**: 75. Jan. 1885 and Tr. Kans. Acad. **9**: 81. 1885.
Wint. & Demet. Hedw. **24**: 181 (5). Oct. 1885.
*Ell. N. A. F. *1434.* 1885.
Roum. Rev. Myc. **8**: 196. 1 Oct. 1886.
*Roum. Fung. Gall. *3861.* 1886.
Kellerm. & Carl. Tr. Kans. Acad. **10**: 92. 1887.
Gall. Bull. U. S. Agr. Veg. Pathol. 8: 56. 1889.
*Pazschke, Fung. Eur. *3939.* Feb. 1894.
Diet. in Engler & Prantl, Pflanzenfam. **1**[1**]: 77. 1897.
Barthol. Tr. Kans. Acad. **16**: 192. June 1899.
Arth. Science II. **10**: 565. 20 Oct. 1899.
Arth. Bot. Gaz. **29**: 274. 30 April 1900.
Arth. Bot. Gaz. **35**: 16. 20 Jan. 1903.
Garrett, Tr. Kans. Acad. **18**: 147. 1903.
Aecidium Verbenæ, Auct. Amer. non Speg.
De Toni in Sacc. Syll. **7**: 816. *d.* 28 Oct. 1888.
Webber, Bull. Nebr. Exp. Sta. **1**: 334 (64). 18 Dec. 1889.
Webber, Rept. Nebr. Agr. **1889**: 212 (72). 1890.
Williams, Bull. S. Dak. Exp. Sta. 29: 49. Dec. 1891.
*Ell. & Ev. Fung. Columb. *270.* 1894.
*Carl. Ured. Amer. *21.* 1894.
Snyder, Proc. Ind. Acad. **1896**: 218. 1897.
*Syd. Uredineen *1200.* Feb. 1898.
*Seymour & Earle, E. F. *523.* 7 June 1899.
Freeman, Minn. Bot. Studies II. 5: 556. 20 July 1901.
Patterson, Bull. U. S. Agr. Pl. Industry 8: 8. 3 Feb. 1902.

Aecidium Verbesinæ, S.

NOTE. Said by Lagerheim to belong to *Puccinia Verbesinæ,* S. See Lagerh. Tromsoe Mus. Aarshefter **17**; 78. 1895.

S. Syn. Car. 68 (42) no. 445. *d.* 1822.
Lk., L. Sp. Pl. ed. Willd. **6**[2]: 52. *d.* 1825.
Underw. & Earle, Bull. Ala. Exp. Sta. 80: 211. 28 June 1897.
Cæoma asteratum, Lk. p. p.
Lk., L. Sp. Pl. ed. Willd. **6**[2]: 51. *d.* 1825.
S. Syn. Am. Bor. 292 no. 2870. 1834.
Uredo Asterum, Spreng.
Spreng. in L. Syst. Veg. 16 ed. **4**[1]: 572. *d.* 1827.
Aecidium asteratum, S. p. p.
S. Syn. Am. Bor. 309. 1834.

Aecidium Vernoniæ, Henn.
Duss. Champ. Guad. & Martinique 7. 1903. West Indies.

Aecidium verrucosum, Bon.
See ***Aecidium Smilacis,*** S.

Aecidium Violæ, Schum.

NOTE. The references given here belong, at least in the majority of cases, to the *Aecidium* of *Puccinia Violæ,* (Schum.) D C. For details see Arth. & Holw. Minn. Bot. Studies II. 5: 633. 20 July 1901. Certain references

may belong to other species, but at the present time there is no means of verifying them.

S. Syn. Car. 67 (41) no. 439. 1822.
Watt, Can. Nat. & Geol. II. **2**: 391. Oct. 1865.
M. A. Curtis, Bot. N. Car. 124. 1867.
Cke. Handbook 543. *d.* 1871.
Edwards, Bull. Torr. Bot. Club **2**: 39. Oct. 1871.
Pk. Rept. N. Y. Mus. **23**: 59. 1872.
Pk. Rept. N. Y. Mus. **24**: 106. 1872.
B. Grev. **3**: 61 (103). Dec. 1874.
Frost in Cat. Pl. Amherst 85. 1875.
Cke. Grev. **6**: 137. June 1878.
Pk. Rept. N. Y. Mus. **29**: 76. 1878.
*Rav. Fung. Am. *38*. 1878.
Johnson, Bull. Minn. Acad. **1**: 366. 1880.
Farl. Proc. Am. Acad. **18**: 75. July 1883.
*Ell. N. A. F. *1007*. 1883.
Bundy, Geol. Wis. 1873–79, **1**: 400. 1883.
Arth. Bull. Iowa Agr. Coll. **1884**: 168. Jan. 1885.
Cragin, Bull. Wash. Lab. **1**: 68. July 1885.
Ell. & Ev. Jour. Myc. **1**: 86. July 1885.
Cobb, List. Pl. Amherst 40. 1887.
Bennett, Cat. Pl. R. I. 89. 1888.
Ell. in Cat. Pl. N. J. 505. 1889.
Williams, Am. Nat. **24**: 779. Aug. 1890.
Small & Vail, Mem. Torr. Bot. Club. **4**: 200. April 1894.
*Ell. & Ev. Fung. Columb. *496*. 1894.
Herbst, Fungal Fl. Lehigh Valley 175. *d.* 1899.

Cæoma violatum, Lk.

S. Syn. Am. Bor. 293 no. 2884. 1834.

Aecidium Violarum, D C.

Sprague, Proc. Boston Soc. **6**: 319. 1859.

Aecidium Violarum, D C.

See ***Aecidium Violæ***, Schum.

Aecidium violascens, Trel.

NOTE. Compare also *Aecidium Geranii-maculati*, S.

Trel. in Sacc., Pk. & Trel., Harriman Alaska Exp. **5**: 37. *d.* 5 April 1904.

Aecidium Wedeliæ, Earle.

Earle, Muhlenbergia **1**: 16. *d.* July 1901. West Indies.

Aecidium Wilcoxianum, Thm.

See ***Aecidium Giliæ***, Pk.

Aecidium Williamsi, Ricker.

Ricker, Jour. Myc. **10**: 165. *d.* 24 June 1904.

Aecidium Xanthoxyli, Pk.

Pk. Bot. Gaz. **6**: 275. *d.* Oct. 1881.
*Wint. Fung. Eur. *2928*. 1883.
*Ell. N. A. F. *1013*. 1883.
Arth. Bull. Iowa Agr. Coll. **1884**: 168. Jan. 1885.
Kellerm. Bull. Wash. Lab. **1**: 75. Jan. 1885 and Tr. Kans. Acad. **9**: 81. 1885.
Kellerm. & Carl. Tr. Kans. Acad. **10**: 92. 1887.
De Toni in Sacc. Syll. **7**: 784. *d.* 28 Oct. 1888.
Webber, Bull. Nebr. Exp. Sta. **1**: 335 (65). 18 Dec. 1889.
Gall. Bull. U. S. Agr. Veg. Pathol. 8: 56. 1889.
Jennings, Bull. Tex. Exp. Sta. 9: 23. May 1890.

Webber, Rept. Nebr. Agr. **1889**: 212 (72). 1890.
*Carl. Ured. Amer. *6*. 1894.
Tubeuf-Smith, Diseases of Plants 410. 1897.
Barthol. Tr. Kans. Acad. **16**: 192. June 1899.
Long, Bull. Torr. Bot. Club. **27**: 586. 14 Nov. 1900.
*Syd. Uredineen *1548*. April 1901.
*Shear, Ell. & Ev. Fung. Columb. *1477*. May 1901.
Patterson, Bull. U. S. Agr. Pl. Industry 8: 8. 3 Feb. 1902.
Garrett, Tr. Kans. Acad. **18**: 147. 1903.

Aecidium on **Zauschneria.**
See ***Puccinia Zauschneriæ***, Syd.

Aecidium Zephyranthis, Shear.
Shear, Bull. Torr. Bot. Club. **29**: 454. *d.* 25 July 1902. Mexico.

Aedycia, Raf.
NOTE. See also *Corynites*, B. & C.
Raf. Med. Repos. II. hex. **5**: 358. *d.* and Desv. Jour. de Bot. **1**: 222. 1808.
Endl. Gen. Pl. 31. 1840.
Gerard, Bull. Torr. Bot. Club. **7**: 30. March 1880.
Fischer in Sacc. Syll. **7**: 12. 15 March 1888.

Aedycia alba, Raf.
Raf. Med. Repos. II. hex. **5**: 358. *d.* and Desv. Jour. de Bot. **1**: 222. 1808.

Aedycia rubra, Raf.
Raf. Med. Repos. II. hex. **5**: 358. *d.* and Desv. Jour. de Bot. **1**: 222. 1808.

Aegerita, P.
Pound & Clements, Minn. Bot. Studies **9**: 732. *d.* 31 May 1897.

Aegerita cæsia, P.
S. Syn. Car. 124 (98) no. 1275. 1822.
S. Syn. Am. Bor. 303 no. 3041. *d.* 1834.
M. A. Curtis, Bot. N. Car. 153. 1867.
Cke. Bull. Buf. Soc. **3**: 195. July 1877.

Aegerita candida, P.
NOTE. Schweinitzian specimens of *Aegerita candida* show only small white globular masses which are probably what he understood to be this species. They have not the structure of *Aegerita*, but are mainly inorganic matter.
Muhl. Cat. Pl. Am. Sept. 1 ed. 106. 1813. 2 ed. 108. 1818.
S. Syn. Car. 124 (98) no. 1274. 1822.
Grev. Scot. Crypt. Fl. **5**: *pl. 268*. 1827.
Fr. S. M. **3**: 220. *d.* 1832.
S. Syn. Am. Bor. 303 no. 3040. 1834.
Sprague, Proc. Boston Soc. **6**: 321. 1859.
M. A. Curtis, Bot. N. Car. 153. 1867.
Cke. Handbook 561. *d. f. 235*. 1871.
B. Grev. **3**: 100 (110). March 1875.
Frost in Cat. Pl. Amherst 86. 1875.
Cke. Bull. Buf. Soc. **3**: 195. July 1877.
C. & E. Grev. **6**: 87. March 1878.
Pk. Rept. N. Y. Mus. **29**: 51. 1878.
*Ell. N. A. F. *361*. 1879.
Pk. in Day's Cat., Bull. Buf. Soc. **4**: 210 (146). 1883.
Sacc. Syll. **4**: 661. *d.* 10 April 1886.
Cobb, List Pl. Amherst 40. 1887.
Ell. in Cat. Pl. N. J. 575. 1889.
Lindau in Engler & Prantl, Pflanzenfam. **1**^{1**}: 500. Feb. 1900.

Aegerita Cordæ, Sacc.?
Ricker, Univ. of Maine Studies 3: 24. 30 April 1902.

Aegerita decolorans, (S.) Sacc.
Sacc. Syll. **4**: 664. *d.* 10 April 1886.
Lindau in Engler & Prantl, Pflanzenfam. **1**1**: 500. Feb. 1900.
Dermosporium decolorans, S.
S. Syn. Am. Bor. 302 no. 3033. *d.* 1834.
Cke. Bull. Buf. Soc. **3**: 194. July 1877.

Aegerita luteseens, S.

NOTE. *Aegerita lutescens* of Herb. Schweinitz has not the structure of the genus if *Aegerita candida,* P. is to be regarded as the type. The *A. lutescens* of Herb. Schweinitz is a fungus certainly near *Penicillium* or *Coremium,* but the material we have examined does not warrant assigning the species a definite place, although it is certainly not an *Aegerita.*

S. Syn. Am. Bor. 303 no. 3042. *d.* 1834.
Cke. Bull. Buf. Soc. **3**: 195. July 1877.
Sacc. Syll. **4**: 663. *d.* 10 April 1886.

Aegerita Ovulum, S.
S. Syn. Am. Bor. 303 no. 3043. *d.* 1834.
M. A. Curtis, Bot. N. Car. 153. 1867.
Cke. Bull. Buf. Soc. **3**: 195. July 1877.
Sacc. Syll. **4**: 663. *d.* 10 April 1886.

Aegerita rosea, (S.) Sacc.
Sacc. Syll. **4**: 664. *d.* 10 April 1886.
Dermosporium roseum, S.
S. Syn. Am. Bor. 302 no. 3034. 1834.
Cke. Bull. Buf. Soc. **3**: 194. July 1877.

Aethalium candidum, Schl. in Spreng.
See ***Fuligo septica,*** Gmel.

Aethalium ferrineola, S.
See ***Fuligo septica,*** Gmel.

Aethalium flavum, Lk.
See ***Fuligo septica,*** Gmel.

Aethalium geophilum, Pk.
See ***Hyphelia terrestris,*** Fr.

Aethalium muscorum, S.
See ***Fuligo septica,*** Gmel.
See ***Fuligo muscorum,*** A. & S.

Aethalium septicum, (L.) Fr.
See ***Fuligo septica,*** Gmel.

Aethalium vaporarium, (P.) S.
See ***Fuligo septica,*** Gmel.

Aethalium violaceum, Spreng.
See ***Fuligo violacea,*** P.

Agaricus, L.

NOTE. In assigning the authority to the specific combinations of species here cross-referred from *Agaricus* to other genera we have in general cited the author by whom the species were placed under the names given, regardless of the question whether he considered the names to represent genera or subgenera, the plan followed in Saccardo's Sylloge and by a large number of writers. This we have found to be the only practical method, for since we believe that the present classification of *Agaricaceæ* is of necessity only provisional and temporary. it would be a waste of time to attempt to search through the innumerable scattered lists, monographs and other small papers of Euro-

pean writers of the last century, to settle points in regard to species common to both countries which could at the best have only a slight value An examination of the writings of those who have attempted to give as authorities for the species of *Agaricaceæ* only those who accepted the genera now adopted as genera rather than subgenera has shown so many inconsistencies and inaccuracies that we have not been able to follow them.

For uniformity's sake we have followed the same plan in regard to the purely North American species, but in this case, as all American references known to us are given, with dates, the reader has the means of settling the question of authority for himself.

As used here in its limited sense we have kept under *Agaricus* the species placed by mycologists in *Psalliota* and *Pratella*, the type of the genus being *Agaricus campestris*, L.

Agaricus abietinus, Bull.
See ***Lenzites abietina,*** (Bull.) Fr.

Agaricus abortivus, B. & C.
See ***Clitopilus abortivus,*** B. & C.

Agaricus abruptus, Pk.
Pk. Mem. N. Y. Mus. **3:** 163. *d. pl. 59, f. 8–14.* Nov. 1900.
White, Bull. Torr. Bot. Club. **29:** 561. 26 Sept. 1902.
Longyear, Rept. Mich. Acad. **4:** 115. 1904.
Agaricus silvicola, Pk. non Vitt.
Pk. Rept. N. Y. Mus. **23:** 97. *d.* 1872.
Pk. Rept. N. Y. Mus. **36:** 47. *d.* 1885.
Pk. Country Gent. **59:** 518 (31). 12 July 1894.
Agaricus arvensis, var. ***abruptus,*** Pk.
Pk. Rept. N. Y. Mus. **46:** 135 (55). *d.* Dec. 1893 and Rev. Myc. **16:** 126. 1 July 1894.
Pk. Country Gent. **59:** 518 (30). 12 July 1894.
Pk. Bull. N. Y. Mus. **6:** 213. July 1899.
Agaricus silvicola, var. ***abruptus,*** (Pk.) Conant.
Conant, Bull. Boston Myc. Club. 19. 5 Feb. 1903.

Agaricus abscondens, Pk.
See ***Pleurotus lignatilis,*** (P.) Fr.

Agaricus abundans, Pk.
See ***Collybia abundans,*** Pk.

Agaricus acericolus, Pk.
See ***Pholiota acericola,*** Pk.

Agaricus acervatus, Fr.
See ***Collybia acervata,*** Fr.

Agaricus Achimenes, B. & C.
B. & C. Am. Jour. Sci. II. **8:** 403. *d.* Nov. 1849.
B. & C. Hook. Jour. Bot. **1:** 98 (2). *d.* 1849. [no. 202.]
Rav. Charleston Med. Jour. & Rev. **6:** 192. March 1851.
M. A. Curtis, Bot. N. Car. 90. 1867.
Sacc. Cub. & Manc. Syll. **5:** 995. *d.* 28 May 1887.
McIlvaine & Macadam, Am. Fung. 340. *d.* 1900.
Psalliota Achimenes, Lloyd.
Lloyd, Myc. Notes 29. Nov. 1899.

Agaricus Acicula, Schæff.
See ***Mycena Acicula,*** (Schæff.) Fr.

Agaricus acicularis, Muhl.
NOTE. This is possibly *Mycena capillaris*, (Schum.) Fr.
Muhl. Tr. Am. Phil. Soc. **3:** 184. 1793.

Agaricus aeris, Bolt.
See ***Lactarius acris,*** (Bolt.) Fr.

Agaricus acutesquamosus, Weinm.
See ***Lepiota acutesquamosa,*** (Weinm.) Fr.

Agaricus acutus, P.
See ***Cortinarius acutus,*** (P.) Fr.

Agaricus adiposus, Fr.
See ***Pholiota adiposa,*** Fr.

Agaricus Adirondackensis, Pk.
See ***Clitocybe Adirondackensis,*** Pk.

Agaricus admirabilis, Pk.
See ***Pluteus admirabilis,*** Pk.

Agaricus adnatus, W. G. Smith.
See ***Amanitopsis adnata,*** (W. G. Smith) Sacc.

Agaricus Adonis, Bull.
See ***Mycena Adonis,*** (Bull.) Fr.

Agaricus adstringens, P.
See ***Tricholoma adstringens,*** (P.) Fr.

Agaricus adustus, P.
See ***Russula adusta,*** (P.) Fr.

Agaricus æruginosus, Curt.
See ***Stropharia æruginosa,*** (Curt.) Fr.

Agaricus æthalus, B. & C.
See ***Pluteus æthalus,*** B. & C.

Agaricus affinis, Frost.
See ***Amanita Frostiana,*** Pk.

Agaricus affricatus, Fr.
See ***Omphalia affricata,*** Fr.

Agaricus aggericolus, Pk.
See ***Pholiota aggericola,*** Pk.

Agaricus agglutinatus, B. & C.
See ***Amanitopsis agglutinata,*** (B. & C.) Sacc.

Agaricus aggregatus, Schæff.
See ***Clitocybe aggregata,*** (Schæff.) Fr.

Agaricus albellus, Fr.
See ***Tricholoma albellum,*** Fr.

Agaricus albissimus, Pk.
See ***Clitocybe albissima,*** Pk.

Agaricus albobrunneus, P.
See ***Tricholoma albobrunneum,*** (P.) Fr.

Agaricus albocrenulatus, Pk.
See ***Pholiota albocrenulata,*** Pk.

Agaricus alboflavidus, Pk.
See ***Tricholoma alboflavidum,*** Pk.

Agaricus alboflavus, Morg.
See ***Omphalia alboflava,*** Morg.

Agaricus albogriseus, Pk.
See ***Clitopilus albogriseus,*** Pk.

Agaricus alboides, Pk.
See ***Tricholoma album,*** (Schæff.) Fr.

Agaricus alborubellus, Mont.
See ***Pluteus alborubellus,*** (Mont.) Pat.

Agaricus alboviolaceus, P.
See ***Cortinarius alboviolaceus,*** (P.) Fr.

Agaricus albus, P.

NOTE. This is possibly *Tricholoma Columbetta,* Fr.

S. Syn. Car. 84 (58). no. 659. 1822.

Agaricus albus, Schæff.

See ***Tricholoma album,*** (Schæff.) Fr.

NOTE. For note on *Tricholoma album,* Shear, N. Y. Fungi 5. 1893 see Romell under *Agaricus* (*Tricholoma*) *lentus,* Post. in Bot. Notiser **1895** : 65.

Agaricus alcalinus, Fr.

See ***Mycena alcalina,*** Fr.

Agaricus aleuriatus, Fr.

See ***Pluteolus aleuriatus,*** Fr.

Agaricus algidus, Herb. S. and S. Am. Bor.

NOTE. In Berkeley & Curtis, Commentary, Jour. Phil. Acad. II. **3** : 206. 1856 the *Agaricus algidus* of Herb. Schweinitz is said to be *Agaricus atro-cæruleus,* Fr. The other references to *Agaricus algidus* will be found under *Pleurotus algidus,* Fr.

Agaricus algidus, Fr.

See ***Pleurotus algidus,*** Fr.

Agaricus alliaceus, Jacq.

See ***Marasmius alliaceus,*** (Jacq.) Fr.

Agaricus alliatus, Schæff.

See ***Marasmius scorodonius,*** Fr.

Agaricus allosporus, B.

NOTE. The only reference to this species known to us is that given below in which there is no description.

B. Jour. Linn. Soc. **5** : 86. 1861 and Arctic Manual 2 : 527. 1875.

Agaricus alluviinus, Pk.

See ***Lepiota alluviina,*** Pk.

Agaricus alneus, L.

See ***Schizophyllum commune,*** Fr.

Agaricus alnicola, Fr.

See ***Flammula alnicola,*** Fr.

Agaricus alphitophorus, B.

See ***Mycena alphitophora,*** B.

Agaricus (Clitocybe) **altus,** Frost.

NOTE. Never described so far as we know.

Frost in Cat. Pl. Amherst 63. 1875.
Cobb, List Pl. Amherst 31. 1887.

Agaricus alutaceus, P.

See ***Russula alutacea,*** P.

Agaricus alveolatus, Cragin.

See ***Pluteus alveolatus,*** (Cragin) Sacc. Syll.
See also ***Pleurotus subpalmatus,*** Fr.

Agaricus Alveolus, Lasch.

See ***Crepidotus Alveolus,*** (Lasch) Fr.

Agaricus amabilipes, Pk.

See ***Collybia amabilipes,*** Pk.

Agaricus amabillissimus, Pk.

See ***Mycena amabilissima,*** Pk.

Agaricus Americanus, Pk.

See ***Lepiota Americana,*** Pk.

Agaricus amethysteus, P.
See ***Laccaria laccata,*** (Scop.) B. & Br.

Agaricus amianthinus, Scop.
See ***Lepiota amianthina,*** (Scop.) Fr.

Agaricus amictus, Fr.
See ***Mycena amicta,*** Fr.

Agaricus amplus, P.
See ***Clitocybe ampla,*** (P.) Fr.

Agaricus amygdalinus, M. A. Curtis.
See ***Agaricus fabaceus,*** B.

Agaricus androsaceus, L.
See ***Marasmius androsaceus,*** (L.) Fr.

Agaricus anepsius, Mont.
See ***Flammula anepsia,*** Mont.

Agaricus angustilamellatus, Mont.
See ***Clitocybe angustilamellata,*** Mont.

Agaricus angustipes, Pk.
See ***Pholiota angustipes,*** Pk.

Agaricus angustissimus, Lasch.
See ***Clitocybe angustissima,*** (Lasch) Fr.

Agaricus anisarius, Pk.
See ***Clitocybe anisaria,*** Pk.

Agaricus anomalus, Frost.

NOTE. There is no means of ascertaining to what species the two following references belong, but they do not belong to *Cortinarius anomalus,* Fr. which is also cited by Frost in his catalogue on another page.

Frost in Cat. Pl. Amherst 63. 1875.
Cobb, List. Pl. Amherst 31. 1887.

Agaricus anomalus, Fr.
See ***Cortinarius anomalus,*** Fr.

Agaricus Anthiceps, B. & C.
See ***Omphalia Anthiceps,*** B. & C.

Agaricus Antillarum, Fr.
See ***Psilocybe Antillarum,*** Fr.

Agaricus apertus, Pk.
See ***Clitocybe aperta,*** Pk.

Agaricus appendiculatus, Bull.
See ***Hypholoma appendiculatum,*** (Bull.) Fr.

Agaricus applicatus, Batsch.
See ***Pleurotus applicatus,*** (Batsch) Fr.

Agaricus aquatilis, Fr.
See ***Galera aquatilis,*** Fr.

Agaricus aqueus, Batsch.

NOTE. Possibly *Coprinus deliquescens,* (Bull.) Fr.

Muhl. Tr. Am. Phil. Soc. **4**: 240. 1799.

Agaricus ardosiaeus, Bull.
See ***Entoloma ardosiacum,*** (Bull.) Fr.

Agaricus arenulinus, Pk.
See ***Psilocybe arenulina,*** Pk.

Agaricus areolatus, Klotzsch.
See ***Psilocybe areolata,*** (Klotzsch) Fr.

Agaricus argentatus, P.
See ***Cortinarius argentatus,*** (P.) Fr.

Agaricus argenteus, Brændle.
Brændle in Pk. Bull. Torr. Bot. Club. **26 :** 68. *d.* 18 Feb. 1899 and Asa Gray Bull. **7 :** 38. April 1899.
McIlvaine & Macadam, Am. Fung. 339. *d.* 1900.
Brown & Fernekes, Bull. Wis. Nat. Hist. Soc. II. **2 :** 46. Jan. 1902.
Sacc. & Syd. Syll. **16 :** 118. *d.* 1 Feb. 1902.
Psalliota argentea, Lloyd.
Lloyd, Myc. Notes 29. Nov. 1899.

Agaricus argillaceus, S. Syn. Car. 670.
See ***Inocybe geophylla,*** (Sow.) Fr.

Agaricus argillosus, B. & C.
See ***Naucoria argillosa,*** B. & C.

Agaricus armeniacus, Schæff.
See ***Cortinarius armeniacus,*** (Schæff.) Fr.

Agaricus Artemisiæ, Pass.
See ***Hypholoma Artemisiæ,*** (Pass.) Fr.

Agaricus arvensis, Schæff.
M. A. Curtis, Bot. N. Car. 90. 1867.
Pk. Rept. N. Y. Mus. **22 :** 78. 1869.
Curtis, Gard. Chron. 1066. 9 Oct. 1869 and Jour. Roy. Hort. Soc. II. **2 :** 72, 77, 78. 1870.
Winder, Mushrooms of Canada 20. 1871.
Parker, Proc. Poughk. Soc. **1 :** 84. 1 Nov. 1875.
Frost in Cat. Pl. Amherst 65. 1875.
Seaman, Field & Forest **1 :** 71. Jan. 1876.
Morg. Fl. Miami Valley 59. 1878.
Pk. Rept. N. Y. Mus. **31 :** 54. 1879.
Hark. & Moore, Cat. Pac. Fung. 7. Feb. 1880.
Somers, Tr. N. Scot. Inst. **5 :** 249. 1882.
Morg. Jour. Cin. Soc. **6 :** 111. *d.* July 1883.
Rav. S. Car. Resources 355. 1883.
Pk. Rept. N. Y. Mus. **36 :** 46. *d.* 1885.
Palmer, Mushrooms *pl. 1.* 1885.
Sacc. Cub. & Manc. Syll. **5 :** 994. *d.* 28 May 1887.
Cobb, List Pl. Amherst 32. 1887.
Bennett, Cat. Pl. R. I. 77. 1888.
Ell. in Cat. Pl. N. J. 475. 1889.
McBride, Bull. Univ. Iowa **1 :** 187. *d.* 198. *d.* June 1890.
Taylor, Rept. U. S. Agr. **1890 :** 368 (7). *pl. 1, f. 6.* 1890. [repr. 1893.]
Forster, Mushrooms 16. 1890.
Pk. Country Gent. **59 :** 518 (29). *f.* 12 July 1894.
Eby, Fungi of Lancaster Co. 8. 1894.
Kellerm. & Werner, Geol. Ohio **7**[2] **:** 315. Jan. 1895.
Gibson, Mushrooms 93. 1895.
Sturgis, Rept. Conn. Agr. **1895 :** 80 (10). Jan. 1896.
Bates, Tr. Mass. Hort. Soc. **1896 :** 174. 1896.
Webster, Am. Kitchen Mag. **6 :** 217. Feb. 1897.
Taylor, Hdbk. Mushrooms 2 : 24. 1897.
Pk. Rept. N. Y. Mus. **48 :** 238 (140). *pl. 8.* March 1897.
Coville, Circ. U. S. Agr. 13 : 7. *f. 2–5.* 1 Dec. 1897.
Taylor, Hdbk. Mushrooms 3 : 2. *pl. E, f. 3.* 1897.
Farl. Yearb. U. S. Agr. **1897 :** 460. *pl. 24.* 1898. [Bull. 15.]
Smith, C. O., Rhodora **1 :** 161. 1 Sept. 1899.
Underw. Moulds 122. 1899.

Atk. Mushrooms 21. *d. f. 18.* 20 Oct. 1900.
Hyams, Bull. N. Car. Exp. Sta. 177: 30. *d.* Dec. 1900.
Atk. in Bailey's Cycl. Am. Hort. 1043. 1900.
McIlvaine & Macadam, Am. Fung. 341. *d.* 1900.
Trel. Rept. Mo. Hort. Soc. **43**: 227. 1900.
Brown & Fernekes, Bull. Wis. Nat. Hist. Soc. II. **2**: 46. Jan. 1902.
Conant, Bull. Boston Myc. Club 19. 5 Feb. 1903.
Longyear, Rept. Mich. Acad. **4**: 115. 1904.
Agaricus edulis, Auct. Amer.
Muhl. Cat. Pl. Am. Sept. 1 ed. 104. 1813. 2 ed. 107. 1818.
S. Syn. Car. 86 (60) no. 719. 1822.
Psalliota arvensis, Taylor.
Taylor, Food Products 2: 21. 1893.
Lloyd, Myc. Notes 29, 30. Nov. 1899.
Perry, Agr. Student **6**: 179 and Ohio Univ. Bull. IV. 30: 6. May 1900.
Psalliota edulis, Lloyd.
Lloyd, Myc. Notes 30. Nov. 1899.

Agaricus arvensis, var. **abruptus,** Pk.
See ***Agaricus abruptus,*** Pk.

Agaricus ascophorus, Pk.

NOTE. Originally placed in *Hebeloma* by Peck, 1872, and said by Berkeley, Grev. 1875 to be a *Flammula*. Under the name *Marasmius ascophorus* the same fungus appears to be referred to by Cooke, 1891. See also *Flammula Highlandensis,* Pk.

Pk. Rept. N. Y. Mus. **24**: 68. *d. pl. 3, f. 1–6.* 1872.
B. Gard. Chron. II. **3**: 503. *f. 106.* 17 April 1875.
De Seynes, Grev. **3**: 169. *d. pl. 46.* June 1875.
B. Grev. **3**: 170. June 1875.
Johnson, Bull. Minn. Acad. **1**: 230. 1877 and Rept. Minn. Surv. **5**: 71. 1877.
Marasmius ascophorus, Cke.
Cke. Grev. **19**: 104. June 1891.

Agaricus asemus, Fr.
See ***Collybia asema,*** Fr.

Agaricus asper, Fr.
See ***Amanita aspera,*** P.

Agaricus aspratus, B.
See ***Lepiota asprata,*** B.

Agaricus asprellus, Fr.
See ***Leptonia asprella,*** Fr.

Agaricus assularum, B. & C.
See ***Leptonia assularum,*** B. & C.

Agaricus atomatoides, Pk.
See ***Psilocybe atomatoides,*** Pk.

Agaricus atomatus, Fr.
See ***Psathyrella atomata,*** Fr.

Agaricus atramentarius, Bull.
See ***Coprinus atramentarius,*** (Bull.) Fr.

Agaricus atratoides, Pk.
See ***Collybia atratoides,*** Pk.

Agaricus atratus, Fr.
See ***Collybia atrata,*** Fr.

Agaricus Atrides, Lasch.
See ***Eccilia Atrides,*** (Lasch) Fr.

Agaricus atroalboides, Pk.
See ***Mycena atroalboides,*** Pk.

Agaricus atroalbus, S. Syn. Car. 681.
See ***Mycena amicta,*** Fr.

Agaricus atrocæruleus, Fr.
See ***Pleurotus atrocæruleus,*** Fr.

Agaricus atrocinereus, S. Syn. Car. 649.
See ***Tricholoma cuneifolium,*** Fr.

Agaricus atrocyaneus, Batsch.
See ***Mycena atrocyanea,*** (Batsch) Fr.

Agaricus atrorufus, Schæff.
See ***Psilocybe atrorufa,*** (Schæff.) Fr.

Agaricus atrotomentosus, Batsch.
See ***Paxillus atrotomentosus,*** (Batsch) Fr.

Agaricus aurantius, Schæff.
See ***Armillaria aurantia,*** (Schæff.) Fr.

Agaricus auratocephalus, Ell.
See ***Clitocybe chrysocephala,*** Sacc. Syll.

Agaricus aureobrunneus, B. & C.
See ***Flammula aureobrunnea,*** B. & C.

Agaricus (Mycena) aureosquamosus, Frost.

NOTE. Apparently not described. Placed by Frost in subgenus *Mycena.*

Frost in Cat. Pl. Amherst 64. 1875.
Cobb, List Pl. Amherst 32. 1887.

Agaricus aureus, S. Syn. Car. 751.

NOTE. This is possibly *Russula aurata,* Fr. but the identity cannot be certainly established.

Agaricus aureus, Mattusch.
See ***Pholiota aurea,*** (Mattusch.) Fr.

Agaricus auricomus, Batsch.
See ***Inocybe auricoma,*** (Batsch) Fr.

Agaricus aurivellus, Batsch.
See ***Pholiota aurivella,*** (Batsch) Fr.

Agaricus Austini, Pk.
See ***Omphalia Austini,*** Pk.

Agaricus autumnalis, Pk.
See ***Naucoria autumnalis,*** Pk.

Agaricus Babingtonii, Blox.
See ***Nolanea Babingtonii,*** (Blox.) Fr.

Agaricus Badhami, B. & Br.
See ***Lepiota Badhami,*** B. & Br.

Agaricus badipus, P.
See ***Naucoria badipus,*** (P.) Fr.

Agaricus badius, Schæff.
See ***Amanitopsis vaginata,*** (Bull.) Rcze.

Agaricus Balanus, Batsch.

NOTE. This name mentioned only by Muhlenberg probably relates to *Agaricus Balanus,* Batsch, Elenchus p. 63, no. 62, referred by Streinz to *Coprinus micaceus,* (Bull.) Fr. but not cited by Fries nor other authors which we have consulted.

Muhl. Tr. Am. Phil. Soc. **4**: 240. 1799.

Agaricus bambusigena, B. & C.
B. & C. Jour. Linn. Soc. **10**: 291. *d.* 1869. West Indies.
Sacc. Cub. & Manc. Syll. **5**: 1004. *d.* 28 May 1887.
Psalliota bambusigena, B. & C.
Henn. in Engler & Prantl, Pflanzenfam. **1**1**: 240. 1898.

Agaricus barbatulus, B. & C.
See ***Pleurotus barbatulus***, B. & C.

Agaricus Batschianus, Fr.
See ***Entoloma Batschianum***, Fr.

Agaricus Behringensis, B. & C.
See ***Omphalia Behringensis***, B. & C.

Agaricus Belliæ, Johnst.
See ***Omphalia Belliæ***, (Johnst.) Fr.

Agaricus Bellotianus, B.
See ***Naucoria Bellotiana***, B.

Agaricus bellulus, Pk.
See ***Naucoria bellula***, Pk.

Agaricus bellus, P.
See ***Clitocybe bella***, (P.) Fr.

Agaricus Benzonii, Fr.
See ***Hiatula Benzonii***, Fr.

Agaricus betulinus, L.
See ***Lenzites betulina***, (L.) Fr.

Agaricus bicolor, P.
See ***Tricholoma personatum***, Fr.

Agaricus bifrons, B.
See ***Psathyra bifrons***, B.

Agaricus bivelus, Fr.
See ***Cortinarius bivelus***, Fr.

Agaricus Blakei, B. & C.
See ***Pleurotus Blakei***, B. & C.

Agaricus blattarius, Fr.
See ***Pholiota blattaria***, Fr.

Agaricus bombycinus, Schæff.
See ***Volvaria bombycina***, (Schæff.) Fr.

Agaricus Bongardii, Weinm.
See ***Inocybe Bongardii***, (Weinm.) Fr.

Agaricus Boryanus, Berk. & Mont.
See ***Collybia Boryana***, Berk. & Mont.

Agaricus brevipes, Bull.
See ***Tricholoma brevipes***, (Bull.) Fr.

Agaricus Brownei, Banning.
See ***Tricholoma Brownei***, Banning.

Agaricus brumalis, Fr.
See ***Clitocybe brumalis***, Fr.

Agaricus brunnescens, Pk.
Pk. Bull. Torr. Bot. Club **27**: 16. *d.* 24 Jan. 1900.
Sacc. & Syd. Syll. **16**: 113. *d.* 1 Feb. 1902.

Agaricus bulbigera, A. & S.
See ***Armillaria bulbigera***, (A. & S.) Fr.

Agaricus bulbillosus, Fr.
See ***Psathyra bulbillosa***, Fr.

Agaricus Bulbillus, S.

NOTE. As far as we know this name occurs first in Fr. Epicr. 118. 1836 as a synonym of *Agaricus echinipes,* Lasch but although quoted since by other writers, we have not been able to trace the name in Schweinitz.

Agaricus bulbosus, Bull.
See ***Amanita Mappa,*** Fr.

Agaricus bulbosus, McClatchie non Bull.
McClatchie, Proc. S. Cal. Acad. **1 :** 382. *d.* 5 June 1897.
Sacc. & Syd. Syll. **16 :** 113. *d.* 1 Feb. 1902.
Psalliota bulbosa, Lloyd.
Lloyd, Myc. Notes 29. Nov. 1899.

Agaricus bullaceus, Bull.
See ***Psilocybe bullacea,*** (Bull.) Fr.

Agaricus butyraceus, Bull.
See ***Collybia butyracea,*** (Bull.) Fr.

Agaricus byssisedus, P.
See ***Claudopus byssisedus,*** (P.) Fr.

Agaricus cacaophyllus, B. & C.
See ***Crepidotus cacaophyllus,*** B. & C.

Agaricus cærulipes, Pk.
See ***Psilocybe cærulipes,*** Pk.

Agaricus cæsariatus, Fr.
See ***Inocybe cæsariata,*** Fr.

Agaricus cæsarius, Scop.
See ***Amanita cæsarea,*** (Scop.) P.

Agaricus cæsius, S. Syn. Car. & S. Am. Bor.
See ***Entoloma turbidum,*** Fr.

Agaricus cæspitosus, (B.) M. A. Curtis, Bot. N. Car.
See ***Pleurotus cæspitosus,*** Sacc. Syll.

NOTE. This is *Agaricus cæspitosus,* M. A. Curtis, Bot. N. Car. 85 where it is placed under the subgenus *Clitocybe.* The plant referred to was *Lentinus cæspitosus,* B. Decades 120 in Lond. Jour. Bot. **6 :** 317 (6). 1847, a species the synonymy of which is complicated. See notes under *Lentinus cæspitosus,* B. and *Pleurotus cæspitosus,* Sacc. Syll.

Agaricus calamistratus, Fr.
See ***Inocybe calamistrata,*** Fr.

Agaricus Calathus, Buxb.
See ***Clitocybe Calathus,*** (Buxb.) Fr.

Agaricus Californicus, Pk.
Pk. Bull. Torr. Bot. Club **22 :** 203. *d.* 15 May 1895.
McClatchie in Reid's Hist. Pasadena 621. 1895.
McClatchie, Proc. S. Calif. Acad. **1 :** 382. 5 June 1897.
Sacc. Hedw. **35 :** VI. 25 Feb. 1896. [Reportorium No. 7.]
Sacc. & Syd. Syll. **14 :** 150. *d.* 20 Aug. 1899.
McIlvaine & Macadam, Am. Fung. 338. *d.* 1900.
Psalliota Californica, Lloyd.
Lloyd, Myc. Notes 29. Nov. 1899.

Agaricus Californiensis, B. & C.
See ***Mycena Californiensis,*** B. & C.

Agaricus callistus, Pk.
See ***Galera callista,*** Pk.
See ***Pluteolus callistus,*** Pk.

Agaricus calochrous, P.
See ***Cortinarius calochrous,*** (P.) Fr.

Agaricus calopus, P.
See ***Marasmius calopus,*** (P.) Fr.

Agaricus Campanella, Batsch.
See ***Omphalia Campanella,*** (Batsch) Fr.

Agaricus campanulatus, L.
See ***Chalymotta campanulata,*** (L.) Karst.
See ***Panæolus campanulatus,*** (L.) Fr.

Agaricus campestris, L.

NOTE. We can give here only a part of the very numerous North American references to this common species, selecting those which show its range or which contain illustrations or economic notes of value.

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Muhl. Tr. Am. Phil. Soc. **3**: 184. 1793.
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Raf. Fl. Ludov. 12. 1817.
Peck, W. D., Pl. Bot. Gard. Camb. 49. 1818.
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Fr. S. M. **1**: 281. 1821.
S. Syn. Car. 86 (60) no. 720. 1822.
Dewey in Hist. Berkshire Co. 85. 1829.
Hitchcock, Cat. Pl. Amherst 59. 1829.
Hitchcock, Cat. Pl. Mass. 1 ed. 644. 1833. 2 ed. 646 (126). 1835.
S. Syn. Am. Bor. 151 no. 237. 1834.
Lev. Ann. Sci. Nat. III. **5**: 115. 1846.
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Sprague, Proc. Boston Soc. **5**: 322, 326. 1856.
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Curtis, M. A., Bot. N. Car. 90. 1867.
Curtis, M. A., Gard. Chron. 1066. 9 Oct. 1869 and Jour. Roy Hort. Soc. II. **2**: 72, 74, 78. 1870.
Pk. Rept. N. Y. Mus. **22**: 78. 1869.
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Winder, Mushrooms of Canada, 6, 7, 20. *f.* 1871.
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Farl. Bull. Bussey Inst. **1**: 436. March 1876.
Cke. Field & Forest **2**: 146. Feb. 1877.
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Brendel, Fl. Peoriana 2 ed. 68. 1887.
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Falconer, Mushrooms 116. *f. 24.* 1891.
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Pk. Country Gent. **59:** 518 (26). *f.* 12 July 1894.
Underw. Proc. Ind. Acad. **1893:** 61. Aug. 1894.
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Bates, Tr. Mass. Hart. Soc. **1896:** 170, 174. *d.* 1896.
Webster, Am. Kitchen Mag. **6:** 217. Feb. 1897 and Taylor, Hdbk. Mushrooms **2:** 24. 1897.
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McClatchie, Proc. S. Calif. Acad. **1:** 382. 5 June 1897.
Atk. Bull. Cornell Univ. **3:** 25. 25 June 1897.
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Beal, Rept. Mich. Agr. 49. 1897.
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Atk. in Bailey's Cycl. Am. Hort. 1042. *f. 1440–1442.* 1900.
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Duss, Champ. Guad. & Martinique, 56. 1903.
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Bres. in Sacc. Pk. & Trel. Harriman Alaska Exp. **5**: 45. 5 April 1904.
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Duggar, Farmers' Bull. U. S. Agr. 204: 5, 20. *f. 1, 2.* 1904.
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Psalliota campestris, Fr.

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Pk. Rept. N. Y. Mus. **36**: 44. *d.* 1885.
Pk. Country Gent. **59**: 518 (27). 12 July 1894.
McIlvaine & Macadam, Am. Fung. 332. *d.* 1900.

Agaricus campestris, L., var. **Buchanani**, Pk.

Pk. Rept. N. Y. Mus. **36**: 44. *d.* 1885.
McIlvaine & Macadam, Am. Fung. 333. *d.* 1900.

Agaricus campestris, L., var. **elongatus**, Pk.

Pk. Rept. N. Y. Mus. **36**: 44. *d.* 1885.
McIlvaine & Macadam, Am. Fung. 333. *d.* 1900.

Agaricus campestris, L., var. **griseus**, Pk.

Pk. Rept. N. Y. Mus. **44**: 150 (38). Dec. 1891.
Pk. Country Gent. **59**: 518 (27). 12 July 1894.
McIlvaine & Macadam, Am. Fung. 332. *d.* 1900.

Agaricus campestris, L., var. **hortensis**, Cke.

Pk. Rept. N. Y. Mus. **36**: 44. *d.* 1885.
Pk. Country Gent. **59**: 518 (27). 12 July 1894.
McIlvaine & Macadam, Am. Fung. 333. *d.* 1900.
Longyear, Rept. Mich. Acad. **4**: 115. 1904.

Psalliota campestris, Fr., var. ***hortensis***, Lloyd.

Lloyd, Myc. Notes 27. *d.* Nov. 1899.

Agaricus campestris, L., var. **pratensis**, Vitt.

Johnson, Bull. Minn. Acad. **1**: 235 and Rept. Minn. Surv. **5**: 72. 1877.
Longyear, Rept. Mich. Bd. Agr. **1898**: 92. 1899.

Agaricus campestris, L., var. **praticola**, Vitt.

Pk. Rept. N. Y. Mus. **36**: 44. *d.* 1885.
McIlvaine & Macadam, Am. Fung. 332. *d.* 1900.

Agaricus campestris, L., var. **rufescens,** B.
Pk. Rept. N. Y. Mus. **36 :** 44. *d.* 1885.
Ell. in Cat. Pl. N. J. 475. 1889.
McIlvaine & Macadam, Am. Fung. 332. *d.* 1900.

Agaricus campestris, L., var. **silvicola,** Vitt.
Bon. Zweite Deutsche Nordpolarfahrt 2 : 89. 1874.
Johnson, Bull. Minn. Acad. **1 :** 235. 1877 and Rept. Minn. Surv. **5 :** 72. 1877.
Longyear, Rept. Mich. Bd. Agr. **1898 :** 92. 1899.

Agaricus campestris, L., var. **umbrinus,** Vitt.
Pk. Rept. N. Y. Mus. **36 :** 44. *d.* 1885.
McIlvaine & Macadam, Am. Fung. 332. *d.* 1900.

Agaricus campestris, L., var. **vaporarius,** Vitt.
Pk. Rept. N. Y. Mus. **36 :** 44. *d.* 1885.
McIlvaine & Macadam, Am. Fung. 333. *d.* 1900.

Agaricus campestris, L., var. **villaticus,** Brond.
Pk. Rept. N. Y. Mus. **25 :** 109. Sept. 1873.
Pk. Rept. N. Y. Mus. **36 :** 44. *d.* 1885.
McIlvaine & Macadam, Am. Fung. 333. *d.* 1900.
Agaricus villaticus, Brond.
Winder, Mushrooms of Canada 20. 1871.

Agaricus camphoratus, Bull.
See ***Lactarius camphoratus,*** (Bull.) Fr.

Agaricus camptophyllus, B.
See ***Omphalia camptophylla,*** B.

Agaricus camptopus, Pk.
See ***Psilocybe camptopus,*** Pk.

Agaricus candicans, P.
See ***Clitocybe candicans,*** (P.) Fr.

Agaricus candidissimus, B. & C.
See ***Pleurotus candidissimus,*** B. & C.

Agaricus Candolleanus, Fr.
See ***Hypholoma Candolleanum,*** Fr.

Agaricus Cantharellus, S.
See ***Hygrophorus Cantharellus,*** (S.) Fr.

Agaricus caperatus, P.
See ***Pholiota caperata,*** (P.) Fr.

Agaricus capillaris, Schum.
See ***Mycena capillaris,*** (Schum.) Fr.

Agaricus capistratus, Cke.
See ***Pholiota capistrata,*** Cke.

Agaricus capnoides, Fr.
See ***Hypholoma capnoides,*** Fr.

Agaricus Caput-Medusæ, Fr.
See ***Stropharia Caput-Medusæ,*** Fr.

Agaricus carbonarius, Fr.
See ***Flammula carbonaria,*** Fr.

Agaricus Carcharias, P.
See ***Lepiota Carcharias,*** P.

Agaricus carecomœis, B. & C.
See ***Collybia carecomis,*** B. & C.

Agaricus carneo-albus, With.
See ***Clitopilus carneo-albus,*** (With.) Fr.

Agaricus carneogriseus, B. & Br.
See ***Eccilia carneogrisea,*** B. & Br.

Agaricus carneolus, Fr.
See ***Omphalia carneola,*** Fr.

Agaricus carneus, Bull.
See ***Tricholoma carneum,*** (Bull.) Fr.

Agaricus carnosior, Pk.
See ***Clitocybe clavipes,*** (P.) Fr.

Agaricus castaneus, Bull.
See ***Cortinarius castaneus,*** (Bull.) Fr.

Agaricus castus, M. A. Curtis.
See ***Tricholoma castum,*** M. A. Curtis.

Agaricus catephes, B.
See ***Pleurotus catephes,*** B.

Agaricus caudicinus, P.
See ***Pholiota mutabilis,*** (Schæff.) Fr.

Agaricus caulicinalis, Bull.
See ***Collybia stipitaria,*** Fr.

Agaricus caveatus, B. & C.
See ***Pleurotus caveatus,*** B. & C.

Agaricus Ceciliæ, B. & Br.
See ***Amanitopsis strangulata,*** (Fr.) Roze.

Agaricus cellaris, Banning.
See ***Tricholoma cellare,*** Banning.

Agaricus centenarius, B. & C.
See ***Omphalia centenaria,*** B. & C.

Agaricus cepæstipes, Sow.
See ***Lepiota cepæstipes,*** (Sow.) Fr.

Agaricus ceraceus, Wulf.
See ***Hygrophorus ceraceus,*** (Wulf.) Fr.

Agaricus cerasinus, Pk.
See ***Pholiota cerasina,*** Pk.

Agaricus cerinus, Morg. non P.
See ***Collybia tenuipes,*** (S.) Sacc. Syll.

Agaricus cerinus, P.
See ***Tricholoma cerinum,*** (P.) Fr.

Agaricus cernuus, Vahl.
See ***Psilocybe cernua,*** (Vahl) Fr.

Agaricus cerodes, Fr.
See ***Naucoria cerodes,*** Fr.

Agaricus cerussatus, Fr.
See ***Clitocybe cerussata,*** Fr.

Agaricus cervinus, Schæff.
See ***Pluteus cervinus,*** (Schæff.) Fr.

Agaricus chalybæus, P.
See ***Leptonia chalybæa,*** (P.) Fr.

Agaricus Chama, Bosc.
See ***Lentinus Chama,*** (Bosc) Fr.

Agaricus cheimonoceps, B. & C.
See ***Lepiota cheimonoceps,*** B. &. C.

Agaricus cheimonophilus, Pk. non B. & C.
See ***Crepidotus versutus,*** Pk.

Agaricus cheimonophilus, B. & C.
See ***Armillaria cheimonophila***, B. & C.
See ***Mucidula cheimonophila***, (B. & C.) Pat.

Agaricus chioneus, P.
See ***Pleurotus chioneus***, (P.) B.

Agaricus chlorinosmus, Pk.
See ***Amanita chlorinosma***, Pk.

Agaricus chondripes, B. & C.
See ***Omphalia chondripes***, B. & C.

Agaricus chrysenteroides, Pk.
See ***Tricholoma chrysenteroides***, Pk.

Agaricus chryseus, Pk.
See ***Omphalia chrysophylla***, Fr., var. ***chrysea***, Pk.

Agaricus chrysocephalus, Henn.
See ***Clitocybe chrysocephala***, Sacc. Syll.

NOTE. Originally spelled *auratocephalus* and name changed in Saccardo's Sylloge to *Clitocybe chrysocephala*, *q. v.*

Agaricus chrysodon, Batsch.
See ***Hygrophorus chrysodon***, (Batsch) Fr.

Agaricus chrysoleucus, Fr.
See ***Omphalia chrysoleuca***, Fr.

Agaricus chrysopellus, B. & C.
See ***Flammula chrysopella***, B. & C.

Agaricus chrysophæus, Schæff.
See ***Pluteus chrysophæus***, (Schæff.) Fr.

Agaricus chrysophlebius, B. & Rav.
See ***Pluteus chrysophlebius***, B. & Rav.

Agaricus chrysophyllus, Fr.
See ***Omphalia chrysophylla***, Fr.

Agaricus chrysotrichus, B. & C.
See ***Flammula chrysotricha***, B. & C.

Agaricus cicatricatus, Ell. & Ev.
See ***Inocybe cicatricata***, Ell. & Ev.

Agaricus ciliatulus, Fr.
See ***Hiatula ciliatula***, Fr.

Agaricus cinereus, Bull.
See ***Coprinus fimetarius***, (L.) Fr.

Agaricus cinnabarinus, S.
See ***Hygrophorus cinnabarinus***, (S.) Fr.

Agaricus cinnamomeus, L.
See ***Cortinarius cinnamomeus***, (L.) Fr.

Agaricus circinatus, Secr.
See ***Pleurotus circinatus***, (Secr.) Fr.

Agaricus cirrhatus, Schum.
See ***Collybia cirrhata***, (Schum.) B.

Agaricus citricolor, B. & C.
See ***Mycena citricolor***, B. & C.

Agaricus citrinellus, P.
See ***Mycena citrinella***, (P.) Fr.

Agaricus clavicularis, Fr.
See ***Mycena clavicularis***, Fr.

Agaricus clavipes, P.
See ***Clitocybe clavipes***, (P.) Fr.

Agaricus Clavus, L.
See ***Collybia Clavus***, (L.) Fr.

Agaricus Clintonianus, Pk.
See ***Nolanea Clintoniana***, Pk.

Agaricus clusilis, Fr.
See ***Collybia clusilis***, Fr.

Agaricus clypeatus, L.
See ***Entoloma clypeatum***, (L.) Fr.

Agaricus clypeolarius, Bull.
See ***Lepiota clypeolaria***, (Bull.) Fr.

Agaricus coccineus, Schæff.
See ***Hygrophorus coccineus***, (Schæff.) Fr.

Agaricus cochleatus, S. Syn. Car. 766.
See ***Lentinus cochleatus***, Fr.

Agaricus cohærens, P.
See ***Mycena cohærens***, (P.) Fr.
See ***Marasmius cohærens***, (P.) Cke.

Agaricus Coldwellii, McKay.
See ***Pleurotus Coldwellii***, McKay.

Agaricus collariatus, Fr.
See ***Mycena collariata***, Fr.

Agaricus collinitus, P.
See ***Cortinarius collinitus***, (P.) Fr.

Agaricus collinus, P.
See ***Marasmius oreades***, (Bolt.) Fr.

Agaricus coloreus, Pk.
See ***Collybia colorea***, Pk.

Agaricus Colossus, Fr.
See ***Tricholoma Colossus***, Fr.

Agaricus colubrinus, S. Syn. Car. 556.
See ***Lepiota clypeolaria***, (Bull.) Fr.

Agaricus Columbanus, Mont.
See ***Clitocybe Columbana***, Mont.

Agaricus Columbetta, Fr.
See ***Tricholoma Columbetta***, Fr.

Agaricus Colvini, Pk.
See ***Hebeloma Colvini***, Pk.

Agaricus comaropsis, Mont.
See ***Hypholoma comaropsis***, Mont.

Agaricus comatellus, Pk.
See ***Inocybe comatella***, Pk.

Agaricus comatus, Fl. Dan.
See ***Coprinus comatus***, (Fl. Dan.) P.

Agaricus commiscibilis, B. & C.
See ***Pleurotus commiscibilis***, B. & C.

Agaricus communis, Pk.
See ***Cortinarius communis***, Pk.

Agaricus comosus, Fr.
See ***Pholiota comosa***, Fr.

Agaricus compactus, Fr.
See ***Tricholoma compactum,*** Fr.

Agaricus compressipes, Pk.
See ***Clitocybe compressipes,*** Pk.

Agaricus comtulus, Fr.
Pk. Rept. N. Y. Mus. **41**: 69. 1888.
Pk. Rept. N. Y. Mus. **44**: 182 (70). Dec. 1891.
Smith, C. O., Rhodora **1**: 162. *d.* 1 Sept. 1899.
Atk. Mushrooms 24. *d. f. 24.* 20 Oct. 1900.
McIlvaine & Macadam, Am. Fung. 334. *d.* 1900.
Atk. in Bailey's Cycl. Am. Hort. 1043. 1900.
Psalliota comtula, Fr.
Lloyd, Myc. Notes 28. *d.* Nov. 1899.

Agaricus conchatus, Bull.
See ***Panus conchatus,*** (Bull.) Fr.

Agaricus conferruminatus, B. & Mont.
See ***Mycena conferruminata,*** B. & Mont.

Agaricus confertus, Bolt.
See ***Galera conferta,*** (Bolt.) Fr.

Agaricus confluens, P.
See ***Collybia confluens,*** (P.) Fr.

Agaricus conicus, Scop.
See ***Hygrophorus conicus,*** (Scop.) Fr.

Agaricus conicus, Pk.
See ***Nolanea conica,*** Pk.

Agaricus conigenoides, Ell.
See ***Collybia conigenoides,*** Ell.

Agaricus conigenoides, Pk. non Ell.
See ***Collybia albipilata,*** Pk.

Agaricus conigenus, P.
See ***Collybia conigena,*** (P.) Fr.

Agaricus connatipes, B. & C.
See ***Mycena connatipes,*** B. & C.

Agaricus connatus, B. & C.
See ***Pleurotus connatus,*** B. & C.

Agaricus connexus, Pk.
See ***Clitocybe connexa,*** Pk.

Agaricus conocephalus, Bull.
See ***Bolbitius conocephalus,*** (Bull.) Fr.

Agaricus conopileus, Fr.
See ***Psathyra conopilea,*** Fr.

Agaricus conopus, P.
See ***Cortinarius sublanatus,*** Fr.

Agaricus consobrinus, B. & Mont.
See ***Tricholoma consobrinum,*** B. & Mont.

Agaricus consociatus, M. A. Curtis.

NOTE. This species, first mentioned by Curtis, 1867, under the subgenus *Tricholoma* has, as far as we can ascertain, never been described. It is cited in the references given below.

M. A. Curtis, Bot. N. Car. 85. 1867.
Cke. & B. Fungi 89. 1875.
Taylor, Food Product 2: 21. 1893.
Hyams, Bull. N. Car. Exp. Sta. 177: 49. Dec. 1900.

Agaricus conspersus, P.
See ***Naucoria conspersa,*** (P.) Fr.

Agaricus constans, Pk.
See ***Mycena constans,*** Pk.

Agaricus constrictus, Fr.
See ***Armillaria constricta,*** Fr.

Agaricus contrarius, Pk.
See ***Naucoria contraria,*** Pk.

Agaricus coprinoceps, B. & C.
See ***Naucoria coprinoceps,*** B. & C.

Agaricus coprinoides, Pk.
See ***Galera coprinoides,*** Pk.

Agaricus coriaceus, Bull.
See ***Lenzites betulina,*** (L.) Fr.

Agaricus corneipes, Fr.
See ***Psilocybe corneipes,*** Fr.

Agaricus coronatus, Fr.
See ***Hypholoma coronatum,*** Fr.

Agaricus corrugis, P.
See ***Psathyra corrugis,*** (P.) Fr.

Agaricus corticatus, Fr.
See ***Pleurotus corticatus,*** Fr.

Agaricus corticola, Schum.
See ***Mycena corticola,*** (Schum.) Fr.

Agaricus costatus, Fr.
See ***Entoloma costatum,*** Fr.

Agaricus cothurnatus, Pk.
Pk. Bull. Torr. Bot. Club. **31**: 181. *d.* 28 April 1904.

Agaricus craspedius, Fr.
See ***Pleurotus craspedius,*** Fr.

Agaricus crassifolius, B.
See ***Tricholoma crassifolium,*** B.

Agaricus crassipes, Schæff.
See ***Collybia fusipes,*** (Bull.) B.

Agaricus cremoraceus, Pk.
See ***Collybia cremoracea,*** Pk.

Agaricus crenulatus, Fr.
See ***Hiatula crenulata,*** Fr.

Agaricus cretacellus, Atk.
Atk. Jour. Myc. **8**: 110. *d.* 14 Oct. 1902.

Agaricus cretaceus, Auct. Amer. p. p.

NOTE. The references to *Agaricus cretaceus* in American literature are all uncertain and even European writers disagree as to the characters of the European species of this name. Some of the references given below probably relate to *Lepiota naucina*, Fr. but others, especially those of an early date, cannot now be recognized with any degree of certainty.

S. Syn. Car. 84 (58) no. 667. 1822.
S. Syn. Am. Bor. 147 no. 75. 1834.
M. A. Curtis, Bot. N. Car. 90. 1867.
Pk. Rept. N. Y. Mus. **22**: 78. 1869.
Cke. & B. Fungi 89. 1875.
Frost in Cat. Pl. Amherst 64. 1875.

Gerard, Proc. Poughk. Soc. **1**: 84. 1 Nov. 1876.
Johnson, Bull. Minn. Acad. **1**: 223. 1877 and Rept. Minn. Surv. **5**: 69. 1877.
Hark. & Moore, Cat. Pac. Fung. 7. Feb. 1880.
Palmer, Mushrooms *pl. 4.* 1885.
Cobb, List Pl. Amherst 32. 1887.
Webster, Am. Kitchen Mag. **6**: 217. Feb. 1897.
Taylor, Hdbk. Mushrooms 2: 24. 1897.
McIlvaine & Macadam, Am. Fung. 344. *d.* 1900.
Psalliota cretacea, Lloyd.
Lloyd, Myc. Notes 29. Nov. 1899.

Agaricus cretatus, B. & Br.
See ***Clitopilus cretatus,*** B. & Br.

Agaricus crinitus, L.
See ***Lentinus crinitus,*** (L.) Fr.

Agaricus crinitus, S.
See ***Lentinus Lecomtei,*** Fr.

Agaricus cristatellus, Pk.
See ***Lepiota cristatella,*** Pk.

Agaricus cristatus, A. & S.
See ***Lepiota cristata,*** A. & S.

Agaricus crocatus, Schrad.
See ***Mycena crocata,*** (Schrad.) Fr.

Agaricus croceocœruleus, P.
See ***Cortinarius croceocœruleus,*** (P.) Fr.

Agaricus croceotinctus, Pk.
See ***Crepidotus croceotinctus,*** Pk.

Agaricus croceus, Schæff.
See ***Cortinarius cinnamomeus,*** var. ***croceus,*** Fr.

Agaricus crocophyllus, B.
See ***Crepidotus crocophyllus,*** B.

Agaricus crocosporus, B. & C.
See ***Galera crocospora,*** B. & C.

Agaricus crustuliniformis, Bull.
See ***Hebeloma crustuliniforme,*** (Bull.) Fr.

Agaricus Cubensis, B. & C.
See ***Amanitopsis Cubensis,*** (B. & C.) Sacc. Syll.

Agaricus cultorum, B. & C.
See ***Lepiota cultorum,*** B. & C.

Agaricus cuneifolius, Fr.
See ***Tricholoma cuneifolium,*** Fr.

Agaricus Curcuma, B. & C.
See ***Naucoria Curcuma,*** B. & C.

Agaricus Curtisii, B.
See ***Pluteus Curtisii,*** B.

Agaricus curvipes, P.
See ***Pholiota tuberculosa,*** Fr.

Agaricus curvomarginatus, Pk.
See ***Naucoria curvomarginata,*** Pk.

Agaricus cuspidatus, Pk.
See ***Entoloma cuspidatum,*** Pk.

Agaricus cyaneus, Pk.
See ***Entoloma cyaneum,*** Pk.

Agaricus cyaneus, S. Syn. Car. 572.
See ***Cortinarius cærulescens,*** (Schæff.) Fr.

Agaricus cyanipes, Frost.

NOTE. Apparently no description has ever been published.

Frost in Cat. Pl. Amherst 64. 1875.
Cobb, List Pl. Amherst 32. 1887.

Agaricus cyanoxanthus, Schæff.
See ***Russula cyanoxantha,*** (Schæff.) Fr.

Agaricus cyanoxanthus, S. Syn. Car. 757.
See ***Russula emetica,*** Fr.

Agaricus cyathiformis, Bull.
See ***Clitocybe cyathiformis,*** (Bull.) Fr.

Agaricus cyathoides, Bolt.
See ***Clitocybe cyathiformis,*** (Bull.) Fr.

Agaricus cymbaliferus, Mont.
See ***Mycena cymbalifera,*** Mont.

Agaricus cyphellæformis, B.
See ***Pleurotus cyphellæformis,*** B.

Agaricus dactyliotus, B. & Mont.
See ***Pholiota dactyliota,*** B. & Mont.

Agaricus daucipes, B. & Mont.
See ***Amanitopsis daucipes,*** (B. & Mont.) Sacc.

Agaricus dealbatus, Sow.
See ***Clitocybe dealbata,*** (Sow.) Fr.

Agaricus debilis, Bull.
See ***Mycena debilis,*** (Bull.) Fr.

Agaricus decipiens, P.
See ***Cortinarius decipiens,*** (P.) Fr.

Agaricus decolorans, P.
See ***Cortinarius decolorans,*** (P.) Fr.

Agaricus decolorans, S. Syn. Car. 580.
See ***Cortinarius calochrous,*** (P.) Fr.

Agaricus decorosus, Pk.
See ***Tricholoma decorosum,*** Pk.

Agaricus decumbens, P.
See ***Cortinarius decumbens,*** (P.) Fr.

Agaricus deglubens, Fr.
See ***Inocybe deglubens,*** Fr.

Agaricus delectabilis, Pk.
See ***Mycena delectabilis,*** Pk.

Agaricus delicatellus, Pk.
See ***Collybia delicatella,*** Pk.

Agaricus delicatulus, Pk.
See ***Nolanea delicatula,*** Pk.

Agaricus delicatus, Fr.
See ***Lepiota delicata,*** Fr.

Agaricus deliciosus, L.
See ***Lactarius deliciosus,*** (L.) Fr.

Agaricus demetriacus, B. & Mont.
See ***Entoloma demetriacum,*** B. & Mont.

Agaricus dentatus, P.
See ***Lentinus cochleatus,*** Fr.

Agaricus denticulatus, S.
See ***Lentinus Schweinitzii,*** Fr.

Agaricus depallens, P.
See ***Russula depallens,*** (P.) Fr.

Agaricus depluens, Batsch.
See ***Claudopus depluens,*** (Batsch) Fr.

Agaricus destrictus, Fr.
See ***Inocybe destricta,*** Fr.

Agaricus detersibilis, B. & C.
See ***Collybia detersibilis,*** B. & C.

Agaricus detersibilis, Pk.
See ***Pholiota detersibilis,*** Pk.

Agaricus dichromus, B. & C.
See ***Psilocybe dichroma,*** B. & C.

Agaricus dichropus, Fr.
See ***Tricholoma dichropus,*** Fr.

Agaricus digitalis, Batsch.
See ***Coprinus digitalis,*** (Batsch) Fr.

Agaricus dilatatus, Fr.
See ***Mycena dilatata,*** Fr.

Agaricus dilutus, P.
See ***Cortinarius dilutus,*** (P.) Fr.

Agaricus diminutivus, Pk.
Pk. Bull. Buf. Soc. **1**: 53. *d.* July 1873 and Rept. N. Y. Mus. **26**: 59. *d.* April 1874.
Pk. Rept. N. Y. Mus. **36**: 49. *d.* 1885.
Sacc. Cub. & Manc. Syll. **5**: 1009. *d.* 28 May 1887.
Smith, C. O., Rhodora **1**: 162. *d.* 1 Sept. 1899.
Atk. Mushrooms 26. *d.* 20 Oct. 1900.
McIlvaine & Macadam, Am. Fung. 335. *d.* 1900.
Pk. Rept. N. Y. Mus. **54**[1]: 184. *d. pl. 74, f. 1–8.* Dec. 1901.
Conant, Bull. Boston Myc. Club 19: 5 Feb. 1903.
Longyear, Rept. Mich. Acad. **4**: 115. 1904.
Psalliota diminutiva, Pk.
Henn. in Engler & Prantl, Pflanzenfam. **1**[1**]: 238. 1898.
Lloyd. Myc. Notes 29. Nov. 1899.

Agaricus discoideus, P.
See ***Hygrophorus discoideus,*** (P.) Fr.

Agaricus discolor, Pk.
See ***Pholiota discolor,*** Pk.

Agaricus discomorbidus, Pk.
See ***Naucoria discomorbida,*** Pk.

Agaricus discopus, Lev.
?See ***Mycena discopus,*** Lev.

Agaricus discretus, Fr.
See ***Hiatula discreta,*** Fr.

Agaricus dispersus, Fr.
See ***Hypholoma dispersum,*** Fr.

Agaricus disseminatus, P.
See ***Psathyrella disseminata,*** (P.) Fr.

Agaricus ditopus, Fr.
See ***Clitocybe ditopus,*** Fr.

Agaricus domesticus, P.
See ***Coprinus domesticus,*** P.

Agaricus dorsalis, Bosc.
See ***Panus dorsalis,*** (Bosc) Fr.

Agaricus dorsalis, Pk.
See ***Crepidotus dorsalis,*** Pk.

Agaricus dryinus, P.
See ***Pleurotus dryinus,*** (P.) Fr.

Agaricus dryophilus, Bull.
See ***Collybia dryophila,*** (Bull.) Fr.

Agaricus dulcamarus, A. & S.
See ***Inocybe dulcamara,*** (A. & S.) Fr.

Agaricus dulcamarus, S. Syn. Car. 628.
See ***Cortinarius iliopodius,*** (Bull.) Fr.

Agaricus durus, Bolt.
See ***Pholiota dura,*** (Bolt.) Fr.

Agaricus dysthales, Pk.
See ***Entoloma dysthales,*** Pk.

Agaricus eburneus, Bull.
See ***Hygrophorus eburneus,*** (Bull.) Fr.

Agaricus echinatus, Roth.

NOTE. The species of this name is referred to by American authors as both *Psalliota echinata,* Fr. and *Inocybe echinata,* Sacc. Syll. The generic position is perhaps doubtful. For references see *Inocybe echinata,* (Roth) Sacc. Syll.

Agaricus echinipes, Lasch.
See ***Mycena echinipes,*** (Lasch) Fr.

Agaricus echinocarpus, Ell.
See ***Inocybe Gaillardi,*** Gillet.

Agaricus ectypoides, Pk.
See ***Clitocybe ectypoides,*** Pk.

Agaricus edulis, Auct. Amer.
See ***Agaricus arvensis,*** Schæff.

Agaricus egenulus, B. & Br.
See ***Hypholoma egenulum,*** B. & Br.

Agaricus elatinus, P.
See ***Panus violaceofulvus,*** (Batsch) Quel.

Agaricus elatior, Pk.
See ***Naucoria elatior,*** Pk.

Agaricus elegans, P.
See ***Mycena elegans,*** (P.) Fr.

Agaricus elixus, Sow.
See ***Clitocybe elixa,*** (Sow.) Fr.

Agaricus elodes, Fr.
See ***Entoloma elodes,*** Fr.

Agaricus elongatipes, Pk.
See ***Psilocybe elongatipes,*** Pk.

Agaricus elvensis, B. & Br.
Hark. & Moore, Cat. Pac. Fung. 7. Feb. 1880.
McIlvaine & Macadam, Am. Fung. 338. *d.* 1900.

Psalliota elvensis, B. & Br.
Lloyd, Myc. Notes 29. Nov. 1899.

Agaricus emendatior, B. & C.
See ***Volvaria emendatior,*** B. & C.

Agaricus emeticus, Fr.
See ***Russula emetica,*** Fr.

Agaricus ephemeroides, Bull.
See ***Coprinus ephemeroides,*** (Bull.) Fr.

Agaricus ephemerus, Bull.
See ***Coprinus ephemerus,*** (Bull.) Fr.

Agaricus epibates, Fr.
See ***Psathyra epibates,*** Fr.

Agaricus Epichysium, P.
See ***Omphalia Epichysium,*** (P.) Fr.

Agaricus epigæus, S. Syn. Car. 816.
See ***Pleurotus applicatus,*** (Batsch) Fr.

Agaricus epimyces, Pk.
See ***Panæolus epimyces,*** Pk.

Agaricus epiphyllus, Fr.
See ***Marasmius epiphyllus,*** Fr.

Agaricus epipterygius, Scop.
See ***Mycena epipterygia,*** (Scop.) Fr.

Agaricus epixanthus, Fr.
See ***Hypholoma epixanthum,*** Fr.

Agaricus equestris, L.
See ***Tricholoma equestre,*** (L.) Fr.

Agaricus ericaceus, S.
See ***Psilocybe ericæa,*** (P.) Fr.

Agaricus ericæus, P.
See ***Psilocybe ericæa,*** (P.) Fr.

Agaricus ericetorum, P.
See ***Omphalia umbellifera,*** (L.) Fr.

Agaricus erinaceëllus, Pk.
See ***Pholiota detersibilis,*** Pk.

Agaricus erinaceus, Fr.
See ***Naucoria erinacea,*** Fr.

Agaricus erubescens, Fr.
See ***Hygrophorus erubescens,*** Fr.

Agaricus erubescens, Mont.
See ***Clitocybe erubescens,*** Mont.

Agaricus erysibodes, Mont.
See ***Hebeloma erysibodes,*** Mont.

Agaricus esculentoides, Pk.
See ***Collybia esculentoides,*** Pk.

Agaricus esculentus, Wulf.
See ***Collybia esculenta,*** (Wulf.) Fr.

Agaricus Estensis, Morg.
See ***Collybia Estensis,*** Morg.

Agaricus eugrammus, Mont.
See ***Panus eugrammus,*** (Mont.) Fr.

Agaricus eumorphus, S. Syn. Car. 644.
See ***Cortinarius anomalus,*** Fr.

Agaricus euosmus, B.
See ***Pleurotus euosmus,*** B.

Agaricus euspeireus, B. & C.
See ***Mycena euspeirea,*** B. & C.

Agaricus eutheles, B. & Br.
See ***Inocybe eutheles,*** B. & Br.

Agaricus eutheloides, Pk.
See ***Inocybe eutheloides,*** Pk.

Agaricus euthygrammus, B. & C.
See ***Naucoria euthygramma*** B. & C.

Agaricus excavatus, B. & C.
See ***Pleurotus excavatus,*** B. & C.

Agaricus excedens, Pk.
See ***Hebeloma excedens,*** Pk.

Agaricus excelsus, Fr.
See ***Amanita excelsa,*** Fr.

Agaricus excoriatus, Schæff.
See ***Lepiota excoriata,*** (Schæff.) Fr.

Agaricus eximius, Pk.
See ***Pilosace eximia,*** Pk.

Agaricus expallens, P.
See ***Clitocybe expallens,*** (P.) Fr.

Agaricus expansus, Pk.
See ***Galera expansa,*** Pk.

Agaricus exsculptus, Fr.
See ***Collybia exsculpta,*** Fr.

Agaricus exsertus, Fr.

NOTE. This is considered by Fries to be a variety of *Agaricus campestris,* L.

Psalliota exserta, Fr.
Lloyd, Myc. Notes 28. *d.* Nov. 1899.

Agaricus fabaceus, B.

NOTE. We have placed here the references to *Agaricus amygdalinus,* M. A. Curtis of which no description was ever published by Curtis but which he later considered, as shown by notes in his herbarium, to be really *Agaricus fabaceus,* B. *Agaricus subrufescens,* Pk. is certainly closely related to what is here classed under *Agaricus fabaceus* and inasmuch as it is not possible at present to settle the points of distinction, all references to these species are placed together since one studying the subject should examine them all.

B. Lond. Jour. Bot. **6 :** 314 (3). *d.* 1847. [No. 114.]
B. & C. Am. Jour Sci. II. **8 :** 403. Nov. 1849.
Lea, Cat. Pl. Cin. 53. *d.* 1849 and Jour. Cin. Soc. **5 :** 200 (4). *d.* Dec. 1882.
Rav. Charleston Med. Jour. & Rev. **6 :** 192. March 1851.
*Rav. Fung. Car. **3 :** *3.* 1855.
Sprague, Proc. Boston Soc. **6 :** 316. 1859.
B. Outl. 80. 1860.
James, Jour. Cin. Soc. **2 :** 64 (23). April 1879.
Morg. Jour. Cin. Soc. **6 :** 111. *d.* July 1883.
Sacc. Cub. & Manc. Syll. **5 :** 994. *d.* 28 May 1887.
Farl. Proc. Boston Soc. **26 :** 358. 8 Sept. 1894.
Kellerm. & Werner, Geol. Ohio **7** [2] **:** 315. Jan. 1895.
Atk. Mushrooms 23. 1900.

Atk. in Bailey's Cycl. Am. Hort. 1043. 1900.
McIlvaine & Macadam, Am. Fung. 341. *d.* 1900.
Agaricus amygdalinus, M. A. Curtis.
M. A. Curtis in Rav. Fung. Car. **3**: *3.* 1855. (MS. note.)
M. A. Curtis, Bot. N. Car. 90. 1867.
M. A. Curtis, Jour. Roy. Hort. Soc. II. **2**: 72, 78. 1870.
Featherman, Bot. Surv. La. **1870**: 123. 1871.
Cke. & B. Fungi 88. 1875.
Rav. S. Car. Resources 355. 1883.
Atk. Mushrooms 23. 20 Oct. 1900.
Trel. Rept. Mo. Hort. Soc. **43**: 228 (5). 1900.
Trel. Rept. Mo. Bot. Gard. **15**: 84. *pl. 35, 36.* 30 April 1904.
Memminger, Jour. Myc. **11**: 12. 4 Jan. 1905.
Agaricus subrufescens, Pk.
Pk. N. Y. Tribune. *d.* 25 Dec. 1892 and Gard. & For. **5**: 624 *d.* 28 Dec. 1892.
Pk. Rept. N. Y. Mus. **46**: 105 (25) *d.* Dec. 1893 and Rev. Myc. **16**: 125. *d.* 1 July 1894.
Falconer, Am. Florist **9**: 657. 22 Feb. 1894.
Taylor, Rept. U. S. Agr. **1885**: (22). 1894. [In reprint only.]
Taylor, Rept. U. S. Agr. **1893**: *pl. 4*[a]. 1894.
Sacc. Syll. **11**: 70. *d.* July 1895.
Pk. Rept. N. Y. Mus. **48**: 236 (138). *pl. 7. f.* March 1897.
Underw. Moulds 122. 1899.
Atk. Mushrooms 23. *d.* 20 Oct. 1900.
McIlvaine & Macadam, Am. Fung. 344. *d.* 1900.
Williams, Plant World **4**: 207. Nov. 1901.
Trel. Rept. Mo. Hort. Soc. **43**: 227. (4). 1901.
Psalliota amygdalina, M. A. Curtis.
M. A. Curtis, Bot. N. Car. 90. 1867.
Taylor, Food Products 2: 21. 1893.
Lloyd, Myc. Notes 29. Nov. 1899.
Hyams, Bull. N. Car. Exp. Sta. 177: 45. Dec. 1900.
Psalliota fabacea, Lloyd.
Lloyd, Myc. Notes 29. Nov. 1899.
Perry, Agricultural Student **6**: 179. May 1900 and Ohio Univ. Bull. IV. 30: 7. May 1900.
Psalliota subrufescens, Lloyd.
Lloyd, Myc. Notes 29. Nov. 1899.

Agaricus facifer, B. & C.
See ***Pleurotus facifer,*** B. & C.

Agaricus fagicola, Lasch.
See ***Psathyra fagicola,*** (Lasch) Fr.

Agaricus falcifolius, Mont.
See ***Psathyrella falcifolia,*** Mont.

Agaricus fallax, Pk.
See ***Tricholoma fallax,*** Pk.

Agaricus Familia, Pk.
See ***Collybia Familia,*** Pk.

Agaricus farinaceus, Huds.
See ***Laccaria laccata,*** (Scop.) B. & Br.

Agaricus farinaceus, Schum.
See ***Panus farinaceus,*** (Schum.) Fr.

Agaricus farinosus, S.
See ***Amanitopsis farinosa,*** (S.) Atk.

Agaricus fasciculariis, Huds.
See ***Hypholoma fasciculare***, (Huds.) Fr.

Agaricus fastibilis, P.
See ***Hebeloma fastibile***, (P.) Fr.

Agaricus fastigiatus, Schæff.
See ***Inocybe fastigiata***, (Schæff.) Fr.

Agaricus Feildeni, B.
See ***Stropharia Feildeni***, B.

Agaricus felinus, P.
See ***Lepiota felina***, P.

Agaricus Fenzlii, Schulz.
See ***Annularia Fenzlii***, Schulz.

Agaricus ferrugineus, S. Syn. Car. 703.
See ***Coprinus micaceus***, (Bull.) Fr.

Agaricus fertilis, A. & S.
See ***Entoloma clypeatum***, (L.) B.

Agaricus fibrillosus, P.
See ***Psathyra fibrillosa***, (P.) Fr.

Agaricus Fibula, Bull.
See ***Omphalia Fibula***, (Bull.) Fr.

Agaricus Fibula, var. **Swartzii**, Fr.
See ***Omphalia Swartzii***, (Fr.) Pk.

Agaricus fibuloides, Pk.
See ***Omphalia fibuloides***, Pk.

Agaricus filipes, Bull.
See ***Mycena filipes***, (Bull.) Fr.

Agaricus fimetarius, L.
See ***Coprinus fimetarius***, (L.) Fr.

Agaricus fimicola, Fr.
See ***Panæolus fimicola***, Fr.

Agaricus fimiputris, Bull.
See ***Anellaria fimiputris***, (Bull.) Karst.

Agaricus flabelliformis, Bolt.
See ***Lentinus flabelliformis***, (Bolt.) Fr.

Agaricus flaccidus, Sow.
See ***Clitocybe flaccida***, (Sow.) Fr.

Agaricus flammans, Fr.
See ***Pholiota flammans***, Fr.

Agaricus flavellus, B. & C.
See ***Omphalia flavella***, B. & C.

Agaricus flavescens, Pk.
See ***Tricholoma flavescens***, Pk.

Agaricus flavidellus, Pk.
See ***Clitocybe flavidella***, Pk.

Agaricus flavidus, P.
See ***Flammula flavida***, (P.) Fr.

Agaricus (Mycena) **flavipes**, S. Syn. Car. 685.

NOTE. It is impossible to say what plant this name is intended to designate.

S. Syn. Car. 85 (59) no. 685. 1822.

Agaricus flavobrunneus, Fr.
See ***Tricholoma flavobrunneum***, Fr.

Agaricus flavolanatus, B. & C.
See ***Pleurotus flavolanatus,*** B. & C.

Agaricus flavorubens, B. & Mont.
See ***Amanita flavorubens,*** B. & Mont.

Agaricus flavovirens, P.
See ***Tricholoma equestre,*** (L.) Fr.

Agaricus flavus, Johnson.
See ***Entoloma flavum,*** Johnson.

Agaricus flexipes, Fr.
See ***Cortinarius flexipes,*** Fr.

Agaricus flexuosus, Fr.
See ***Lactarius flexuosus,*** Fr.

Agaricus floccosus, Schæff.
See ***Pholiota squarrosa,*** (Muell.) Fr.

Agaricus (Galera) **flocculentus,** Fr.

NOTE. In the reference given below Fries cites his Epicrisis p. 209 but in that place the name *Agaricus flocculentus,* Fr. does not occur; instead is *Agaricus frustulentus,* Fr. which is not said to occur in Central America.

Fr. Nova Acta R. Soc. Sci. Upsal. III. **1**: 24. 1851. Cent. Amer.
Polakowsky, Jahresber. Ver. Erdkunde Dresden **16**: 74. 1879.

Agaricus flocculentus, Poll.
See ***Inocybe lanuginosa,*** (Bull.) Fr.

Agaricus flocculosus, B.
See ***Inocybe flocculosa,*** B.

Agaricus floralis, B. & Rav.
See ***Lepiota floralis,*** B. & Rav.

Agaricus fluxilis, Fr.
See ***Pleurotus fluxilis,*** Fr.

Agaricus fœderatus, B. & Mont.
Mont. Syll. Crypt. 121. *d.* 1856.
Sacc. Cub. & Manc. Syll. **5**: 1003. *d.* 28 May 1887.
McIlvaine & Macadam, Am. Fung. 339. *d.* 1900.
Psalliota fœderata, B. & Mont.
Henn. in Engler & Prantl, Pflanzenfam. **1**^{1**}: 240. 1898.
Lloyd, Myc. Notes 29. Nov. 1899.

Agaricus fœnisecii, P.
See ***Psilocybe fœnisecii,*** (P.) Fr.

Agaricus fœtens, P.
See ***Russula fœtens,*** (P.) Fr.

Agaricus foliomarginatus, Pk.
See ***Leptonia foliomarginata,*** Pk.

Agaricus fragilior, Pk.
See ***Hebeloma fragilius,*** Pk.

Agaricus fragilis, Schæff.
See ***Omphalia Campanella,*** (Batsch) Fr.

Agaricus fragilis, P.
See ***Russula fragilis,*** P.

Agaricus fragilissimus, Henn.
See ***Hiatula fragilissima,*** Rav.

Agaricus fragrans, Sow.
See ***Clitocybe fragrans,*** (Sow.) Fr.

Agaricus Friesii, Lasch.
See ***Lepiota Friesii,*** (Lasch) Fr.

Agaricus Frostianus, Pk.
See ***Amanita Frostiana,*** Pk.

Agaricus frumentaceus, Bull.
See ***Tricholoma frumentaceum,*** (Bull.) Fr.

Agaricus (Galera) **frustulentus,** Fr.

NOTE. See note under *Agaricus flocculentus,* Fr.

Agaricus fulgens, A. & S.
See ***Cortinarius fulgens,*** (A. & S.) Fr.

Agaricus fuliginarius, Batsch.
See ***Collybia plexipes,*** Fr.

Agaricus fuliginosus, Fr.
See ***Lactarius fuliginosus,*** Fr.

Agaricus fulvaster, B. & C.
See ***Lepiota fulvastra,*** B. & C.

Agaricus fulvellus, Fr.
See ***Tricholoma fulvellum,*** Fr.

Agaricus fulvofuligineus, A. & S.
See ***Cortinarius scaurus,*** Fr.

Agaricus fulvotomentosus, Pk.
See ***Crepidotus fulvotomentosus,*** Pk.

Agaricus fulvus, Fr.
See ***Tricholoma flavobrunneum,*** Fr.

Agaricus fulvus, Pk.
See ***Naucoria fulva,*** Pk.

Agaricus fumescens, Pk.
See ***Tricholoma fumescens,*** Pk.

Agaricus fumidellus, Pk.
See ***Tricholoma fumidellum,*** Pk.

Agaricus fumosoluteus, Pk.
See ***Tricholoma fumosoluteum,*** Pk.

Agaricus fumosus, P.
See ***Clitocybe fumosa,*** (P.) Fr.

Agaricus furcatus, P.
See ***Russula furcata,*** P.

Agaricus furfuraceus, P.
See ***Tubaria furfuracea,*** (P.) Fr.

Agaricus furnus, Batsch.

NOTE. This is possibly a misprint for *Agaricus firmus* but in any case it is impossible to say what species the author intended to designate.

Muhl. Tr. Am. Phil. Soc. **4**: 240. 1799.

Agaricus fuscescens, Schæff.
See ***Coprinus fuscescens,*** (Schæff.) Fr.

Agaricus fuscifolius, Pk.
See ***Nolanea fuscifolia,*** Pk.

Agaricus fusciffrons, B. & C.
See ***Pleurotus fusciffrons,*** B. & C.

Agaricus fuscocarneus.

NOTE. It is impossible to determine what species is intended in the citation given.

Bennett, Cat. Pl. R. I. 77. 1888.

Agaricus fuscodiscus, Pk.
See ***Inocybe fuscodisca,*** (Pk.) Massee.

Agaricus fuscogriseëllus, Pk.
See ***Nolanea fuscogriseëlla,*** Pk.

Agaricus fuscolilacinus, Pk.
See ***Collybia fuscolilacina,*** Pk.

Agaricus fuscosquameus, Pk.
See ***Lepiota fuscosquamea,*** Pk.

Agaricus fusipes, Bull.
See ***Collybia fusipes,*** (Bull.) B.

Agaricus Fusus, Batsch.
See ***Flammula Fusus,*** (Batsch) Fr.

Agaricus galericulatus, Scop.
See ***Mycena galericulata,*** (Scop.) Fr.

Agaricus galopus, P.
See ***Mycena galopus,*** P.

Agaricus gambosus, Fr.
See ***Tricholoma gambosum,*** Fr.

Agaricus gelatinosus, Gmel.
See ***Crepidotus mollis,*** (Schæff.) Fr.

Agaricus geminellus, Pk.
See ***Naucoria geminella,*** Pk.

Agaricus gentilis, Fr.
See ***Cortinarius gentilis,*** Fr.

Agaricus geophyllus, Sow.
See ***Inocybe geophylla,*** (Sow.) Fr.

Agaricus geotropus, Bull.
See ***Clitocybe geotropa,*** (Bull.) Fr.

Agaricus Gerardianus, Pk.
See ***Omphalia Gerardiana,*** Pk.

Agaricus gibbus, P.
See ***Clitocybe infundibuliformis,*** (Schæff.) Fr.

Agaricus giganteus, Leys.
See ***Clitocybe maxima,*** (Gaertn. & Meyer) Fr.

Agaricus gilvus, Fr.
See ***Clitocybe gilva,*** Fr.

Agaricus glandulosus, Bull.
See ***Pleurotus glandulosus,*** (Bull.) Fr.

Agaricus glaucipes, B. & C.
See ***Clitocybe glaucipes,*** B. & C.

Agaricus glaucopus, Schæff.
See ***Cortinarius glaucopus,*** (Schæff.) Fr.

Agaricus gliodermus, Fr.
See ***Lepiota glioderma,*** Fr.

Agaricus gloiocephalus, D C.
See ***Volvaria gloiocephala,*** (D C.) Fr.

Agaricus glutinosus, Lindgr.
See ***Hebeloma glutinosum,*** (Lindgr.) Fr.

Agaricus Gordoni, B. & Br.
See ***Psathyra Gordoni,*** B. & Br.

Agaricus gossypinus, Johnson.
See ***Hebeloma gossypinum,*** Johnson.

Agaricus gracilentus, Krombh.
See ***Lepiota gracilenta,*** (Krombh.) Fr.

Agaricus gracilis, Fr.
See ***Psathyrella gracilis,*** Fr.

Agaricus gracillimus, Weinm.
See ***Omphalia gracillima,*** (Weinm.) Fr.

Agaricus graciloides, Pk.
See ***Psathyrella graciloides,*** Pk.

Agaricus grammopodius, Bull.
See ***Tricholoma grammopodium,*** (Bull.) Fr.

Agaricus granosus, Morg.
See ***Lepiota granosa,*** Morg.

Agaricus granularis, Pk.
See ***Pluteus granularis,*** Pk.

Agaricus granulosus, Batsch.
See ***Lepiota granulosa,*** (Batsch) Fr.

Agaricus granulosus, Batsch. var. **amianthinus,** Pk.
See ***Lepiota amianthina,*** (Scop.) Fr.

Agaricus graveolens, P.
See ***Tricholoma graveolens,*** (P.) Fr.

Agaricus Grayanus, Pk.
See ***Entoloma Grayanum,*** Pk.

Agaricus Greigensis, Pk.
See ***Claudopus Greigensis,*** Pk.

Agaricus griseoscabrosus, Pk.
See ***Inocybe griseoscabrosa,*** (Pk.) Earle.

Agaricus Guadelupensis, Pat.
Pat. Bull. Soc. Myc. Fr. **15**: 197. *d.* 31 July 1899. West Indies.
Sacc. & Syd. Syll. Fung. **16**: 114. *d.* 1 Feb. 1902.
Duss, Champ. Guad. & Martinique 56. 1903.

Agaricus gummosus, Lasch.
See ***Flammula gummosa,*** (Lasch) Fr.

Agaricus gyroflexus, Fr.
See ***Psathyra gyroflexa,*** Fr.

Agaricus hædinus, B. & C.
See ***Pleurotus hædinus,*** B. & C.

Agaricus hæmatocephalus, Mont.
See ***Marasmius hæmatocephalus,*** (Mont.) Fr.

Agaricus hæmatopus, P.
See ***Mycena hæmatopus,*** (P.) Fr.

Agaricus hæmorrhoidarius, Schulzer.
Pk. Rept. N. Y. Mus. **45**: 79 (19) *d.* Dec. 1893.
Pound, Bot. Surv. Nebr. 3: 12. 18 June 1894.
Pk. Bull. Torr. Bot. Club **26**: 67. *d.* 18 Feb. 1899.
Underw. Moulds 122. 1899.
McIlvaine & Macadam, Am. Fung. 336. *d.* 1900.
Williams, Plant World **4**: 207. Nov. 1901.
Pk. Rept. N. Y. Mus. **54**[1]: 183. *d. pl. 75 f. 1–13.* Dec. 1901.
Psalliota hæmorrhoidaria, Schulzer.
Lloyd, Myc. Notes 29. Nov. 1899.

Agaricus hærens, Pk.
See ***Crepidotus hærens,*** Pk.

Agaricus Hallianus, Pk.
See ***Flammula Halliana,*** Pk.

Agaricus hariolorum, Bull.
See ***Collybia hariolorum***, (Bull.) Fr.

Agaricus haustellaris, Fr.
See ***Crepidotus haustellaris***, Fr.

Agaricus Hebeloma, Pk.
See ***Tricholoma Hebeloma***, Pk.

Agaricus helictus, B.
See ***Nolanea helicta***, B.

Agaricus helodes, Fr.
See ***Entoloma helodes***, Fr.

Agaricus helvoliceps, B. & C.
See ***Flammula helvoliceps***, B. & C.

Agaricus helvolus, P.
See ***Cortinarius gentilis***, Fr.

Agaricus helvus, Fr.
See ***Lactarius helvus***, Fr.

Agaricus hemileucus, B. & C.
See ***Collybia hemileuca***, B. & C.

Agaricus hemiphlebius, B. & C.
See ***Pleurotus hemiphlebius***, B. & C.

Agaricus hemisclerus, B. & C.
See ***Lepiota hemisclera***, B. & C.

Agaricus hemispilus, Lev.
See ***Clitocybe? hemispila***, (Lev.) Sacc. Syll.

Agaricus hemitrichus, P.
See ***Cortinarius hemitrichus***, (P.) Fr.

Agaricus hepaticus, Batsch.
See ***Omphalia hepatica***, (Batsch) Fr.

Agaricus herbarum, Pk.
See ***Crepidotus herbarum***, Pk.

Agaricus hercynicus, var. **brunneus**, S. Syn. Car. 574.
See ***Cortinarius violaceus***, (L.) Fr.

Agaricus heteroclitus, Fr.
See ***Pholiota heteroclita***, Fr.

Agaricus hiascens, Fr.
See ***Psathyrella hiascens***, Fr.

Agaricus hiemalis, Osbeck.
See ***Mycena hiemalis***, (Osbeck) Fr.

Agaricus Highlandensis, Pk.
See ***Flammula Highlandensis***, Pk.

NOTE. Compare also *Agaricus ascophorus*, Pk.

Agaricus hirtipes, Schum.
See ***Nolanea hirtipes***, (Schum.) Fr.

Agaricus hirtosquamulosus, Pk.
See ***Hypholoma hirtosquamulosum***, Pk.

Agaricus Hoffmani, Pk.
See ***Clitocybe Hoffmani***, Pk.

Agaricus hololepis, Fr.
See ***Pilosace hololepis***, Fr.

Agaricus holoporphyrus, B. & C.
See ***Clitocybe holoporphyra***, B. & C.

Agaricus holosericeus, Fr.
See ***Lepiota holosericea,*** Fr.

Agaricus hordus, Pk. nec Fr.
See ***Collybia platyphylla,*** (P.) Fr.

Agaricus hormophorus, Mont.
See ***Pholiota hormophora,*** Mont.

Agaricus Hornemanni, Fr.
See ***Stropharia depilata,*** (P.) Fr.

Agaricus Howeanus, Pk.
See ***Pholiota Howeana,*** (Pk.) Earle.

Agaricus humilis, P.
See ***Tricholoma humile,*** (P.) Fr.

Agaricus hyacinthus, Batsch.
See ***Hygrophorus conicus,*** (Scop.) Fr.

Agaricus hydrophorus, Bull.
See ***Psathyrella hydrophorus,*** (Bull.) Fr.

Agaricus hygrophoroides, Pk.
See ***Collybia hygrophoroides,*** Pk.

Agaricus hymenocephalus, Pk.
See ***Hypholoma hymenocephalum,*** Pk.

Agaricus hypnophilus, B.
See ***Pleurotus hypnophilus,*** B.

Agaricus Hypnorum, Batsch.
See ***Galera Hypnorum,*** (Batsch) Fr.

Agaricus hypopithyus, M. A. Curtis.

NOTE. This species is mentioned in the citations given below under the subgenus *Tricholoma* but it apparently was never described. Under the genus *Tricholoma* it is referred to but again without description.

Curtis, M. A., Bot. N. Car. 84. 1867.
Cke. & B. Fungi 89. 1875.

Agaricus hypoporphyrus, B. & C.
See ***Leptonia hypoporphyra,*** B. & C.

Agaricus hypothejus, Fr.
See ***Hygrophorus hypothejus,*** Fr.

Agaricus ianthinus, Batsch.
See ***Mycena pura,*** (P.) Fr.

Agaricus iliopodius, Bull.
See ***Cortinarius iliopodius,*** (Bull.) Fr.

Agaricus illicitus, Pk.
See ***Hebeloma illicitum,*** Pk.

Agaricus illinitus, L.
See ***Lepiota illinita,*** (L.) Fr.

Agaricus illudens, S.
See ***Clitocybe illudens,*** S.

Agaricus imbricatus, Fr.
See ***Tricholoma imbricatum,*** Fr.

Agaricus immaculatus, Pk.
See ***Mycena immaculata,*** Pk.

Agaricus impolitoides, Pk.
See ***Tricholoma scalpturatum,*** Fr.

Agaricus incanus, Fr.
See ***Leptonia incana,*** Fr.

Agaricus incertus, Pk.
See ***Hypholoma appendiculatum,*** (Bull.) Fr.

Agaricus inconstans, Fr.

NOTE. This species, mentioned by Muhlenberg, 1813, 1818, Torrey 1819, is uncertain. It is referred by Schweinitz, 1834, to Panus conchatus, Fr.

Agaricus indecens, Pk.
See ***Pholiota indecens,*** Pk.

Agaricus Indigo, S.
See ***Lactarius Indigo,*** (S.) Fr.

Agaricus indigoferus, Ell.
See ***Entoloma indigoferum,*** Ell.

Agaricus infelix, Pk.
See ***Inocybe infelix,*** Pk.

Agaricus infidus, Pk.
See ***Inocybe infida,*** (Pk.) Earle.

Agaricus infractus, Fr.
See ***Cortinarius infractus,*** Fr.

Agaricus infundibuliformis, Schæff.
See ***Clitocybe infundibuliformis,*** (Schæff.) Fr.

Agaricus inopus, Fr.
See ***Flammula inopus,*** Fr.

Agaricus inquilinus, Fr.
See ***Tubaria inquilina,*** Fr.

Agaricus integrellus, P.
See ***Omphalia integrella,*** (P.) Fr.

Agaricus intertextus, B. & C.
See ***Mycena intertexta,*** B. & C.

Agaricus involutus, Batsch.
See ***Paxillus involutus,*** (Batsch) Fr.

Agaricus iocephalus, B. & C.
See ***Mycena iocephala,*** B. & C.

Agaricus Iris, B.
See ***Mycena Iris,*** B.

Agaricus jejunus, Fr.
Fr. Nova Acta R. Soc. Sci. Upsal. III. **1**: 24. *d.* 1851. West Indies.
Sacc. Cub. & Manc. Syll. **5**: 1001. *d.* 28 May 1887.

Agaricus Johnsonianus, Pk.
See ***Pholiota Johnsoniana,*** (Pk.) Atk.

Agaricus jubatus, Fr.
See ***Entoloma jubatum,*** Fr.

Agaricus juncicola, Fr.
See ***Mycena juncicola,*** Fr.

Agaricus kermesinus, B. & C.
See ***Omphalia kermesina,*** B. & C.

Agaricus laccatus, Scop.
See ***Laccaria laccata,*** (Scop.) B. & Br.

Agaricus laceratus, S. Syn. Car. 637.

NOTE. It is uncertain to what plant this name belongs, but it apparently is not *Collybia lacerata,* (Lasch). See P. Syn. 336. 1801 and Streinz, Nomenclator 61. 1862.

S. Syn. Car. 82 (56) no. 637. 1822.

Agaricus lacerus, Fr.
See ***Inocybe lacera,*** Fr.

Agaricus lachnophyllus, B.
See ***Collybia lachnophylla,*** B.
See ***Marasmius cohærens,*** (P.) Cke.

Agaricus lachrymabundum, Bull.
See ***Hypholoma lachrymabundum,*** (Bull.) Fr.

Agaricus lacteus, P.
See ***Mycena lactea,*** P.

Agaricus lacteus, S. Syn. Car. 745.
See ***Russula furcata,*** P.

Agaricus lactifluus, Schæff.
See ***Lactarius volemus,*** Fr.

Agaricus lacunosus, Pk.
See ***Collybia lacunosa,*** Pk.

Agaricus lætifrons, B. & C.
See ***Pluteus lætifrons,*** B. & C.

Agaricus lætus, P.
See ***Hygrophorus lætus,*** (P.) Fr.

Agaricus lævis, Krombh.
See ***Annularia lævis,*** (Krombh.) Fr.

Agaricus lamellirugus, D C.
See ***Paxillus panuoides,*** Fr.

Agaricus (Pleurotus) **lamellosus,** S.

NOTE. The only reference we have to this species is that given below, but no description appears to have been given, although Schweinitz gives himself as authority.

S. Syn. Am. Bor. 149 no. 161. 1834.

Agaricus lampropus, Fr.
See ***Leptonia lampropus,*** Fr.

Agaricus lanuginosus, Bull.
See ***Inocybe lanuginosa,*** (Bull.) Fr.

Agaricus lascivus, Fr.
See ***Tricholoma lascivum,*** Fr.

Agaricus laterarius, Pk.
See ***Tricholoma laterarium,*** Pk.

Agaricus latericolor, Mont.
See ***Hebeloma latericolor,*** Mont.

Agaricus lateritius, Schæff.
See ***Hypholoma sublateritium,*** Fr.

Agaricus lateritius, Fr. non Schæff.
See ***Galera lateritia,*** Fr.

Agaricus latifolius, Pk.
See ***Mycena latifolia,*** Pk.

Agaricus Leaianus, B.
See ***Mycena Leaiana,*** B.

Agaricus Leightoni, B.
See ***Pleurotus Leightoni,*** B.

Agaricus leiopus, S. Syn. Car. 658.
See ***Collybia asema,*** Fr.

Agaricus leiphæmius, Mont.
See ***Clitocybe leiphæmia,*** Mont.

Agaricus lenticeps, Pk.
See ***Naucoria lenticeps,*** Pk.

Agaricus lenticularis, Lasch.
See ***Lepiota lenticularis,*** (Lasch) Gillet.

Agaricus lentinoides, Pk.
See ***Collybia lentinoides,*** Pk.

Agaricus lentus, P.
See ***Flammula lenta,*** (P.) Fr.

Agaricus leoninus, Schæff.
See ***Pluteus leoninus,*** (Schæff.) Fr.

Agaricus leoninus, var. b., S. Syn. Car. 638.
See ***Pluteus leoninus,*** (Schæff.) Fr.

Agaricus lepideus, Fr.
See ***Lentinus lepideus,*** Fr.

Agaricus lepidomyces, A. & S.
See ***Cortinarius pholideus,*** Fr.

Agaricus leptocephalus, P.
See ***Mycena alcalina,*** Fr.

Agaricus leptolomus, Pk.
See ***Clitocybe leptoloma,*** Pk.

Agaricus leptophyllus, Pk.
See ***Mycena leptophylla,*** Pk.

Agaricus leucocephalus, Fr.
See ***Tricholoma leucocephalum,*** Fr.

Agaricus leucophanes, B. & Br.
See ***Panæolus leucophanes,*** B. & Br.

Agaricus leucophyllus, A. & S.
See ***Tricholoma ustale,*** Fr.

Agaricus leucoxanthus, P.
See ***Tricholoma sejunctum,*** (Sow.) Fr.

Agaricus lignatilis, P.
See ***Pleurotus lignatilis,*** (P.) Fr.

Agaricus lignicola, Pk.
See ***Naucoria lignicola,*** Pk.

Agaricus lilacifolius, Pk.
See ***Omphalia lilacifolia,*** Pk.

Agaricus lilacinus, Pk.
See ***Omphalia lilacifolia,*** Pk.

Agaricus lilacinus, Mont.
See ***Mycena lilacina,*** Mont.

Agaricus limicola, Pk.
See ***Psilocybe limicola,*** Pk.

Agaricus limonellus, Pk.
See ***Pholiota limonella,*** Pk.

Agaricus Limonium, Pk.
See ***Collybia scorzonerea,*** (Batsch) Fr.

Agaricus limophilus, Pk.
See ***Psilocybe limophila,*** Pk.

Agaricus limpidus, Fr.
See ***Pleurotus limpidus,*** Fr.

Agaricus lineatus, Bull.
See ***Mycena lineata,*** (Bull.) P.

Agaricus liratus, B. & C.
See ***Galera lirata,*** B. & C.

Agaricus lividus, S. Syn. Car. 758.
See ***Russula furcata,*** P.

Agaricus longicaudus, P.
See ***Hebeloma longicaudum,*** (P.) Fr

Agaricus longipes, Bull.
See ***Collybia longipes,*** (Bull.) Fr.

Agaricus longistriatus, Pk.
See ***Pluteus longistriatus,*** Pk.

Agaricus lucifugus, Fr.
See ***Inocybe lucifuga,*** Fr.

Agaricus lupinus, Fr.
See ***Flammula lupina,*** Fr.

Agaricus luridus, Schæff.
See ***Tricholoma luridum,*** (Schæff.) Fr.

Agaricus (Mycena) **luteo-alba?**
Somers, Tr. N. Scot. Inst. **6**: 286. 1887.

Agaricus luteofolius, Pk.
See ***Pholiota luteofolia,*** Pk.

Agaricus luteo-olivaceus, B. & C.
See ***Collybia luteo-olivacea,*** B. & C.

Agaricus luteopallens, Pk.
See ***Mycena luteopallens,*** Pk.

Agaricus luteovirens, A. & S.
See ***Armillaria luteovirens,*** (A. & S.) Fr.

Agaricus luteus, Huds.
See ***Russula lutea,*** (Huds.) Fr.

Agaricus lycoperdoides, Bull.
See ***Nyctalis lycoperdoides,*** (Bull.) Schrt.

Agaricus macromastes, Fr.
See ***Galera macromastes,*** Fr.

Agaricus macropus, Fr.
See ***Cortinarius macropus,*** Fr.

Agaricus macrosporus, Mont.
See ***Lentinus Lecomtei,*** Fr.

Agaricus macrourus, Scop.
See ***Collybia radicata,*** (Relh.) Fr.

Agaricus maculatus, A. & S.
See ***Collybia maculata,*** (A. & S.) Fr.

Agaricus maculatus, Scop.
See ***Gomphidius maculatus,*** (Scop.) Fr.

Agaricus maculosus, Pk.
See ***Clitocybe maculosa,*** Pk.

Agaricus madeodiscus, Pk.
See ***Hypholoma madeodiscum,*** Pk.

Agaricus madidus, Fr.
See ***Entoloma madidum,*** Fr.

Agaricus magnificus, Pk.
Pk. Bull. Torr. Bot. Club. **26**: 67. *d.* 8 Feb. 1899.
McIlvaine & Macadam, Am. Fung. 342. *d. pl. 94.* 1900.
Trel. Rept. Mo. Hort. Soc. **43**: 228 (5). 1900.

Sacc. & Syd. Syll. **16**: 119. *d.* 1 Feb. 1902.
Psalliota magnifica, Lloyd.
Lloyd, Myc. Notes 29. Nov. 1899.

Agaricus magnivelaris, Pk.
See ***Armillaria ponderosa,*** Pk.

Agaricus magnus, Frost.

NOTE. This species, so far as we know, is mentioned only in places cited below and no description has been published.

Frost in Cat. Pl. Amherst 65. 1875.
Cobb, List Pl. Amherst 32. 1887.

Agaricus majalis, Fr.
See ***Entoloma majale,*** Fr.

Agaricus malachius, B. & C.
See ***Crepidotus malachius,*** B. & C.

Agaricus mammosus, L.
See ***Nolanea mammosa,*** (L.) Fr.

Agaricus Mappa, Batsch.
See ***Amanita Mappa,*** (Batsch) Fr.

Agaricus marginatus, Batsch.
See ***Pholiota marginata,*** (Batsch) Fr.

Agaricus maritimoides, Pk.
See ***Inocybe maritimoides,*** Pk.

Agaricus maritimus, Fr.
See ***Inocybe maritima,*** Fr.

Agaricus maritimus, Pk.
Pk. Bull. Torr. Bot. Club **26**: 66. *d.* 8 Feb. 1899.
Underw. Moulds 122. 1899.
Atk. Mushrooms 142. 20 Oct. 1900.
McIlvaine & Macadam, Am. Fung. 337. *d.* 1900.
Pk. Rept. N. Y. Mus. **54**[1]: 184. *d.* Dec. 1901.
Sacc. & Syd. Syll. **16**: 114. *d.* 1 Feb. 1902.
Conant, Bull. Boston Myc. Club 19. 5 Feb. 1903.
Psalliota maritima, Lloyd.
Lloyd, Myc. Notes 29. Nov. 1899.

Agaricus marmoreus, Pk.
See ***Clitocybe marmorea,*** Pk.

Agaricus Martianus, B. & C.
See ***Galera Martiana,*** B. & C.

Agaricus mastiger, B. & Br.
See ***Psathyra mastigera,*** B. & Br.

Agaricus mastoideus, Fr.
See ***Lepiota mastoidea,*** Fr.
See ***Lepiota umbonata,*** (Schum.) Schrt.

Agaricus mastrucatus, Fr.
See ***Pleurotus mastrucatus,*** Fr.

Agaricus maximus, Gærtn. & Meyer.
See ***Clitocybe maxima,*** (Gærtn. & Meyer) Fr.

Agaricus melaleucus, P.
See ***Tricholoma melaleucum,*** (P.) Fr.

Agaricus meliigena, B. & Cke.
See ***Mycena meliigena,*** B. & Cke.

Agaricus Melilotus, B. & C.
See ***Clitopilus Melilotus,*** B. & C.

Agaricus melinoides, P.
See ***Naucoria melinoides,*** (P.) Fr.

Agaricus melleorubens, B. & C.
See ***Armillaria melleorubens,*** B. & C.

Agaricus melleus, Vahl.
See ***Armillaria mellea,*** (Vahl) Fr.

Agaricus mesomorphus, A. & S.
See ***Lepiota delicata,*** Fr.

Agaricus mesophæus, P.
See ***Hebeloma mesophæum,*** (P.) Fr.

Agaricus metachrous, Fr.
See ***Clitocybe metachroa,*** Fr.

Agaricus metulisporus, B. & Br.
See ***Lepiota metulispora,*** B. & Br.

Agaricus Miamensis, Morg.
See ***Lepiota Miamensis,*** Morg.

Agaricus micaceus, Bull.
See ***Coprinus micaceus,*** (Bull.) Fr.

Agaricus Michelianus, Fr.
See ***Collybia Micheliana,*** Fr.

Agaricus Micheneri, B. & C.
See ***Pleurotus Micheneri,*** B. & C.

Agaricus micropus, Pk.
See ***Clitopilus micropus,*** Pk.

Agaricus microsporus, Ell.
See ***Tricholoma microsporum,*** Ell.

Agaricus miculatus, Fr.
See ***Tricholoma miculatum,*** Fr.

Agaricus miniatus, Fr.
See ***Hygrophorus miniatus,*** Fr.

Agaricus minutulus, Pk.
See ***Mycena minutula,*** Pk.

Agaricus minutus.

NOTE. This name recorded by Muhlenberg without authority is impossible to trace.

Muhl. Tr. Am. Phil. Soc. **4**: 240. 1799.

Agaricus miratus, Pk.
See ***Mycena mirata,*** Pk.

Agaricus mitis, P.
See ***Pleurotus mitis,*** (P.) Fr.

Agaricus modestus, Pk.
See ***Hypholoma modestum,*** Pk.

Agaricus mollis, Schæff.
See ***Crepidotus mollis,*** (Schæff.) Fr.

Agaricus monadelphus, Morg.
See ***Clitocybe monadelpha,*** Morg.
See ***Armillaria mellea,*** (Vahl) Fr.

Agaricus (Tricholoma) **monstrosus,** Sow.

NOTE. We are unable to say what this species is.

Johnson, Bull. Minn. Acad. **1**: 354. 1880.

Agaricus montanus, P.
See ***Psilocybe atrorufa,*** (Schæff.) Fr.

Agaricus montanus, Pk.
See ***Omphalia montana,*** Pk.

Agaricus monticulosus, B. & C.
See ***Amanita monticulosa,*** B. & C.

Agaricus Morgani, Pk.
See ***Lepiota Morgani,*** Pk.

Agaricus mucidolens, B.
See ***Galera mucidolens,*** B.

Agaricus mucidus, Schrad.
See ***Armillaria mucida,*** (Schrad.) Fr.

Agaricus mucifer, B. & Mont.
See ***Tricholoma muciferum,*** B. & Mont.

Agaricus Mucor, Batsch.
See ***Mycena Mucor,*** (Batsch) Fr.

Agaricus multipunctus, Pk.
See ***Pleurotus decorus,*** Fr.

Agaricus muralis, Sow.
See ***Omphalia muralis,*** (Sow.) Fr.

Agaricus muricatus, Fr.
See ***Pholiota muricata,*** Fr.

Agaricus murinaceus, Bull.
See ***Tricholoma murinaceum,*** (Bull.) Fr.

Agaricus murinolilacinus, Ell. & Ev.
See ***Inocybe murinolilacina,*** Ell. & Ev.

Agaricus Murrayi, B. & C.
See ***Entoloma Murrayi,*** B. & C.

Agaricus musæcola, B. & C.
See ***Crepidotus musæcola,*** B. & C.

Agaricus muscarius, L.
See ***Amanita muscaria,*** (L.) P.

Agaricus muscarius, var. **major,** Pk.
See ***Amanita strobiliformis,*** (Vitt.) Fr.

Agaricus muscarius, var. **minor,** Pk.
See ***Amanita Frostiana,*** Pk.

Agaricus muscigenus, Schum.
See ***Collybia muscigena,*** (Schum.) Fr.

Agaricus muscorum, Hoffm.
See ***Tubaria muscorum,*** (Hoffm.) Fr.

Agaricus mutabilis, Schæff.
See ***Pholiota mutabilis,*** (Schæff.) Fr.

Agaricus mutatus, Pk.
See ***Inocybe mutata,*** (Pk.) Massee.

Agaricus mutilus, Fr.
See ***Pleurotus mutilus,*** Fr.

Agaricus mycenoides, Fr.
See ***Pholiota mycenoides,*** Fr.

Agaricus myomyces, A. & S. no. 503.
See ***Tricholoma terreum,*** (Schæff.) Fr.

Agaricus myriadophyllus, Pk.
See ***Collybia myriadophylla,*** Pk.

Agaricus nanus, P.
See ***Pluteus nanus,*** (P.) Fr.

Agaricus narcoticus, Batsch.
See ***Coprinus narcoticus,*** (Batsch) P.

Agaricus nardosmius, Ell.
See ***Armillaria nardosmia,*** Ell.

Agaricus naucinoides, Pk.
See ***Lepiota naucina,*** Fr.

Agaricus naucinus, Fr.
See ***Lepiota naucina,*** Fr.

Agaricus nauseosus, P.

NOTE. The species by this name in S. Syn. Car. 759 is later referred by Schweinitz to *Russula nitida,* P. *q. v.* Other references to this species seem doubtful.

Agaricus (Entoloma) **nauseosus,** M. A. Curtis.

NOTE. This occurs only in Curtis's Catalogue and no description has ever been published.

M. A. Curtis, Bot. N. Car. 88. 1867.

Agaricus nebularis, Batsch.
See ***Clitocybe nebularis,*** (Batsch) Fr.

Agaricus necator, P.
See ***Lactarius turpis,*** Fr.

Agaricus nephrodes, B. & C.
See ***Crepidotus nephrodes,*** B. & C.

Agaricus nephrodes, Pk. 26 Rept. non B. & C.
See ***Crepidotus applanatus,*** Fr.

Agaricus Nicotiana, B. & C.
See ***Naucoria Nicotiana,*** B. & C.

Agaricus nidorosus, Fr.
See ***Entoloma nidorosum,*** Fr.

Agaricus nidulans, P.
See ***Claudopus nidulans,*** (P.) Pk.

Agaricus niger, S.
See ***Pleurotus niger,*** (S.) Fr.

Agaricus nigrella, S. Syn. Car. 785.
See ***Collybia atrata,*** Fr.

Agaricus nigripes, S.
See ***Marasmius nigripes,*** (S.) Fr.

Agaricus nigrita, B. & C.
See ***Collybia nigrita,*** B. & C.

Agaricus niphetus, Ell.
See ***Pleurotus niphetus,*** Ell.

Agaricus nitidipes, Pk.
See ***Hypholoma nitidipes,*** Pk.

Agaricus nitidus, Fr.
See ***Amanita nitida,*** Fr.

Agaricus nitidus, P.
See ***Russula nitida,*** P.

Agaricus nitidus, S. Syn. Car. 716.
See ***Psilocybe ericæa,*** (P.) Fr.

Agaricus nivalis, Pk. non Grev.
See ***Amanitopsis albocreata,*** Atk.

Agaricus niveus, P. Syn. p. 400.
See ***Coprinus niveus,*** P.

Agaricus niveus, P. Syn. p. 438.
See ***Russula fragilis,*** P.

Agaricus noctiphilus, Ell.
See ***Lepiota noctiphila,*** Ell.

Agaricus nodulosporus, Pk.
See ***Inocybe nodulispora,*** Pk.

Agaricus nolitangere, Fr.
See ***Psathyra nolitangere,*** Fr.

Agaricus Noveboracensis, Pk.
See ***Clitopilus Noveboracensis,*** Pk.

Agaricus nuceus, Bolt.
See ***Naucoria nucea,*** (Bolt.) Fr.

Agaricus nudus, Bull.
See ***Tricholoma nudum,*** (Bull.) Fr.

Agaricus oblitus, Pk.
See ***Lepiota oblita,*** Pk.

Agaricus obscuratus, B. & Br.
See ***Marasmius obscuratus,*** B. & Br.

Agaricus obscurus, P.
See ***Inocybe obscura,*** (P.) Fr.

Agaricus obtusatus, Fr.
See ***Psathyra obtusata,*** Fr.

Agaricus ocellatus, Fr.
See ***Collybia ocellata,*** Fr.

Agaricus ochraceus, A. & S.
See ***Russula ochracea,*** A. & S.

Agaricus ochroleucus, P.
See ***Cortinarius ochroleucus,*** (P.) Fr.

Agaricus ochroleucus, S. Syn. Car. 754.
See ***Russula emetica,*** Fr.

Agaricus ochropurpureus, B.
See ***Clitocybe ochropurpurea,*** B.

Agaricus Oculus, Pk.
See ***Omphalia Oculus,*** Pk.

Agaricus odoratus, Pk.
See ***Psathyrella odorata,*** Pk.

Agaricus odorifer, Pk.
See ***Mycena odorifera,*** Pk.

Agaricus odorus, Bull.
See ***Clitocybe odora,*** (Bull.) Fr.

Agaricus Ohiensis, Mont.
See ***Clitocybe Ohiensis,*** Mont.

Agaricus oinodes, B. & C.
See ***Naucoria oinodes,*** B. & C.

Agaricus oligosareus, Rav.
See ***Lepiota oligosarca,*** Rav.

Agaricus olivæsporus, Ell. & Ev.
See ***Hypholoma olivæsporum,*** Ell. & Ev.

Agaricus olivarius, Pk.
See ***Omphalia olivaria,*** Pk.

Agaricus olivascens, S. Syn. Car. 762.
See ***Russula alutacea,*** Fr.

Agaricus Oniscus, Fr.
See ***Omphalia Oniscus,*** Fr.

Agaricus onustus, Howe.
See ***Amanita onusta,*** Howe.

Agaricus opacus, With.
See ***Clitocybe opaca,*** (With.) Fr.

Agaricus Orcella, Bull.
See ***Clitopilus Orcella,*** (Bull.) Fr.

Agaricus oreades, Bolt.
See ***Marasmius oreades,*** (Bolt.) Fr.
See ***Marasmius caryophylleus,*** (Schæff.) Schrt.

Agaricus ornellus, Pk.
See ***Hypholoma ornellum,*** Pk.

Agaricus ostreatus, Jacq.
See ***Pleurotus ostreatus,*** (Jacq.) Fr.

Agaricus ovalis, Fr.
See ***Galera ovalis,*** Fr.

Agaricus pallidipes, Ell. & Ev.
See ***Inocybe pallidipes,*** Ell. & Ev.

Agaricus pallidomarginatus, Pk.
See ***Hebeloma pallidomarginatum,*** Pk.

Agaricus pallidus, P.
See ***Lactarius pallidus,*** (P.) Fr.

Agaricus palmigena, B. & C.
See ***Psilocybe palmigena,*** B. & C.

Agaricus paludinellus, Pk.
See ***Inocybe trechispora,*** (B.) Karst.

Agaricus palustris, Pk.
See ***Mycena palustris,*** Pk.

Agaricus panæolus, Fr.
See ***Tricholoma panæolum,*** Fr.

Agaricus pantherinus, D C.
See ***Amanita pantherina,*** (D C.) Fr.

Agaricus papilionaceus, Bull.
See ***Chalymotta papilionacea,*** (Bull.) Karst.
See ***Panæolus papilionaceus,*** (Bull.) Fr.

Agaricus papillatus, Batsch.
See ***Coprinus papillatus,*** (Batsch) P.

Agaricus papularis, Fr.
See ***Naucoria papularis,*** Fr.

Agaricus papyraceus.

NOTE. We have no means of knowing what species this is.

Dewey in Hist. Berkshire Co. 85. 1829.
Hitchcock, Cat. Pl. Mass. 644. 1833. 2 ed. 646 (126). 1835.

Agaricus parilis, Fr.
See ***Clitocybe parilis,*** Fr.

Agaricus parvifructus, Pk.
See ***Hebeloma parvifructum,*** Pk.

Agaricus parvulus, Weinm.
See ***Volvaria pusilla,*** (P.) Fr.

Agaricus pascuensis, Pk.
See ***Clitopilus pascuensis,*** Pk.

Agaricus pascuus, P.
See ***Nolanea pascua,*** (P.) Fr.

Agaricus patuloides, Pk.
See ***Tricholoma patulum,*** Fr.

Agaricus paupereculus, B.
See ***Mycena paupercula,*** B.

Agaricus Peckii, Howe.
See ***Armillaria aurantia,*** (Schæff.) Fr.

Agaricus Pecten, B. & C.
See ***Crepidotus Pecten,*** B. & C.

Agaricus pectinatus, S.
See ***Lentinus pectinatus,*** (S.) Fr.

Agaricus pectinatus, B. & C.
See ***Naucoria pectinata,*** B. & C.

Agaricus pediades, Fr.
See ***Naucoria pediades,*** Fr.

Agaricus pelianthinus, Fr.
See ***Mycena pelianthina,*** Fr.

Agaricus pelidnus, B. & Mont.
See ***Lepiota pelidna,*** B. & Mont.

Agaricus pelliculosus, S.
See ***Lentinus pelliculosus,*** (S.) Fr.

Agaricus pellucidus, Bull.
See ***Tubaria pellucida,*** (Bull.) Fr.

Agaricus peltigerinus, Pk.
See ***Clitocybe peltigerina,*** Pk.

Agaricus penetrans, Fr.
See ***Flammula penetrans,*** Fr.

Agaricus Pennsylvanicus, B. & C.
See ***Naucoria Pennsylvanica,*** B. & C.

Agaricus perbrevis, Weinm.
See ***Inocybe perbrevis,*** Weinm.

Agaricus peregrinus, Fr.
See ***Flammula peregrina,*** Fr.

Agaricus perforans, Hoffm.
See ***Marasmius perforans,*** (Hoffm.) Fr.

Agaricus periporphyrus, B. & C.

NOTE. In Engler & Prantl, Pflanzenfam. 1^{1**}: 267. 1898 this species credited to Peck is quoted from North America, evidently by error. The species is described by Berkeley and Curtis from the Bonin Islands. See B. & C. Proc. Am. Acad. 4: 111. 14 Dec. 1858 and Sacc. Syll. 5: 115.

Agaricus perplexus, Pk.
See ***Hypholoma perplexum,*** Pk.

Agaricus perpusillus, Fr.
See ***Pleurotus perpusillus,*** Fr.

Agaricus personatus, Fr.
See ***Tricholoma personatum,*** Fr.

Agaricus pessundatus, Fr.
See ***Tricholoma pessundatum,*** Fr.

Agaricus petaloides, S. Am. Bor. 147.
See ***Panus angustatus,*** B.

Agaricus petaloides, Bull.
See ***Pleurotus petaloides,*** (Bull.) Fr.

Agaricus petasatus, Fr.
See ***Pluteus petasatus,*** Fr.

Agaricus Phalænarum, Fr.
See ***Panæolus Phalænarum,*** Fr.

Agaricus phalloides, Fr.
See ***Amanita phalloides,*** Fr.

Agaricus phlebophorus, Ditm.
See ***Pluteus phlebophorus,*** (Ditm.) Fr.

Agaricus pholideus, Fr.
See ***Cortinarius pholideus,*** Fr.

Agaricus pholidotus, Mont.
See ***Psathyra pholidota,*** Mont.

Agaricus phyllogenus, Pk.
See ***Hypholoma phyllogenum,*** Pk.

Agaricus phyllophilus, P.
See ***Clitocybe phyllophila,*** (P.) Fr.

Agaricus physcopodius, Mont.
See ***Collybia physcopodia,*** Mont.

Agaricus picreus, P.
See ***Flammula picrea,*** (P.) Fr.

Agaricus pilularius, Mont.
See ***Collybia pilularia,*** Mont.

Agaricus pineus, Spreng.
See ***Clitocybe piniaria,*** (Bosc) Fr.

Agaricus piniarius, Bosc.
See ***Clitocybe piniaria,*** (Bosc) Fr.

Agaricus pinophilus, Pk.
See ***Clitocybe pinophila,*** Pk.

Agaricus pinsitus, Fr.
See ***Pleurotus pinsitus,*** Fr.

Agaricus Pinus, Frost.
See ***Clitocybe clavipes,*** (P.) Fr.

Agaricus piperatus, Scop.
See ***Lactarius piperatus,*** (Scop.) Fr.

Agaricus pirinus, B. & C.
See ***Eccilia pirina,*** B. & C.

Agaricus piriodorus, P.
See ***Inocybe piriodora,*** (P.) Fr.

Agaricus pithyophilus, Fr.
See ***Clitocybe pithyophila,*** Fr.

Agaricus Placenta, Batsch.
See ***Entoloma Placenta,*** (Batsch) Fr.

Agaricus placomyces, Pk.

NOTE. This species is nearly related to *Agaricus silvaticus*, Schæff. of which it is considered by some to be merely a variety.

Pk. Rept. N. Y. Mus. **29**: 40. *d.* 1878.
Pk. Rept. N. Y. Mus. **36**: 48. *d.* 1885.
Sacc. Cub. & Manc. Syll. **5**: 1003. *d.* 28 May 1887.
Fairman, Proc. Rochester Acad. **2**: 159. Feb. 1893.
Pk. Country Gent. **59**: 518 (31) *d. f.* 12 July 1894.
Pk. Rept. N. Y. Mus. **48**: 240 (142). *pl. 9. f. 7–12.* March 1897.
Atk. Bull. Cornell Univ. **3**: 25. 25 June 1897.
Underw. & Earle, Bull. Ala. Exp. Sta. 80: 253. 28 June 1897.
[Underw.] N. Y. Myc. Club 16. 1898.
Smith, C. O., Rhodora **1**: 163. *d.* 1 Sept. 1899.
Underw. Moulds 122. 1899.
Atk. in Bailey's Cycl. Am. Hort. 1043. 1900.
Atk. Mushrooms 23. *d. pl. 4, f. 21, 22, pl. 5, f. 23.* 20 Oct. 1900.
McIlvaine & Macadam, Am. Fung. 345. *d. pl. 91, f. 3.* 1900.
Sweetser, Bull. Pacific Univ. **1**[4]: 12. May 1901.
Earle in Mohr, Contr. U. S. Nat. Herb. **6**: 224. 31 July 1901.
Ferguson, Bull. U. S. Agr. Pl. Industry 16: 5, 17. 14 June 1902.
Psalliota placomyces, Pk.
Henn. in Engler & Prantl, Pflanzenfam. **1**[1**]: 240. 1898.
Lloyd, Myc. Notes 27. *d.* Nov. 1899.

Agaricus planus, P.
See ***Pleurotus planus,*** (P.) Fr.

Agaricus platyphyllus, P.
See ***Collybia platyphylla,*** (P.) Fr.

Agaricus plexipes, Fr.
See ***Collybia plexipes,*** Fr.

Agaricus plicatellus, Pk.
See ***Galera coprinoides,*** Pk.

Agaricus plicatilis, Curt.
See ***Coprinus plicatilis,*** (Curt.) Fr.

Agaricus plumatus, Walt.
See ***Lentinus plumatus,*** (Walt.) Fr.

Agaricus plumbeus, Schæff.
See ***Amanitopsis vaginata,*** (Bull.) Roze.

Agaricus plumiger, B. & C.
See ***Psathyra plumigera,*** B. & C.

Agaricus Pluteus, P.
See ***Pluteus cervinus,*** (Schæff.) Fr.

Agaricus Plutonius, B. & C.
See ***Psilocybe Plutonius,*** B. & C.

Agaricus Poculum, Pk.
See ***Clitocybe Poculum,*** Pk.

Agaricus polychrous, B.
See ***Flammula polychroa,*** B.

Agaricus polychrous, Pk. Rept.
See ***Flammula spumosa,*** Fr.

Agaricus polygrammus, Bull.
See ***Mycena polygramma,*** (Bull.) P.

Agaricus polymyces, P.
See ***Armillaria mellea,*** (Vahl.) Fr.

Agaricus polypyramis, B. & C.
See ***Amanita solitaria,*** (Bull.) Fr.

Agaricus polystictus, B.
See ***Lepiota polysticta,*** B.

Agaricus polytrichophilus, Pk.
See ***Psathyra polytrichophila,*** Pk.

Agaricus pometi, Paul.
See ***Pleurotus pometi,*** (Paul.) Fr.

Agaricus ponderosus, Pk.
See ***Armillaria ponderosa,*** Pk.

Agaricus popinalis, Fr.
See ***Clitopilus popinalis,*** Fr.

Agaricus porcellanus, Schæff.
See ***Coprinus comatus,*** (Fl. Dan.) P.

Agaricus porphyrellus, B. & C.
See ***Clitocybe porphyrella,*** B. & C.

Agaricus porrigens, P.
See ***Pleurotus porrigens,*** (P.) Fr.

Agaricus portentosus, Fr.
See ***Tricholoma portentosum,*** Fr.

Agaricus præceps, B. & C.
See ***Collybia præceps,*** B. & C.

Agaricus præcox, P.
See ***Pholiota præcox,*** (P.) Fr.

Agaricus præfoliatus, Pk.
See ***Collybia platyphylla,*** (P.) Fr.

Agaricus prælongus, Pk.
See ***Mycena polygramma,*** (Bull.) P.

Agaricus prætorius, Fr. p. p.
See ***Amanita cæsarea,*** (Scop.) P.

Agaricus pratensis, Schæff.
S. Syn. Car. 81 (55) no. 605. 1822.
S. Syn. Am. Bor. 147 no. 77. 1834.
Hark. & Moore, Cat. Pac. Fung. 7. Feb. 1880.
Webber, Rept. Nebr. Agr. **1889:** 229 (89). 1890.
McIlvaine & Macadam, Am. Fung. 340. *d.* 1900.

Agaricus procerus, Scop.
See ***Lepiota procera,*** (Scop.) P.

Agaricus proliferus, Sow.
See ***Mycena prolifera,*** (Sow.) Fr.

Agaricus pronus, Fr.
See ***Psathyrella prona,*** Fr.

Agaricus pruinatipes, Pk.
See ***Naucoria pruinatipes,*** Pk.

Agaricus pruinosus, Lasch.
See ***Clitocybe pruinosa,*** (Lasch) Fr.

Agaricus prunuloides, Fr.
See ***Entoloma prunuloides,*** Fr.

Agaricus Prunulus, Scop.
See ***Clitopilus Prunulus,*** (Scop.) Fr.

Agaricus Prunulus, var. **Orcella,** Auct. Amer.
See ***Clitopilus Orcella,*** (Bull.) Fr.

Agaricus pseudotener, Fr.
See ***Psathyra pseudotenera,*** Fr.

Agaricus psilopus, Rav.
See ***Lepiota psilopus,*** Rav.

Agaricus psittacinus, Schæff.
See ***Hygrophorus psittacinus,*** (Schæff.) Fr.

Agaricus pterigenus, Fr.
See ***Mycena pterigena,*** Fr.

Agaricus pubescens, S.
See ***Amanitopsis pubescens,*** (S.) Sacc.

Agaricus pubescentipes, Pk.
See ***Volvaria pubescentipes,*** Pk.

Agaricus pulcher, P.
See ***Coprinus plicatilis,*** (Curt.) Fr.

Agaricus pulcherrimus, Pk.
See ***Mycena pulcherrima,*** Pk.

Agaricus pulicosus, Mont.
See ***Psilocybe pulicosa,*** Mont.

Agaricus pulvinatus, P.
See ***Pleurotus pulvinatus,*** (P.) Fr.

Agaricus pumilus, P.
See ***Pholiota pumila,*** (P.) Fr.

Agaricus punctatus, Fr.
See ***Hebeloma punctatum,*** Fr.

Agaricus purpurascens, A. & S.
See ***Hygrophorus purpurascens,*** (A. & S.) Fr.

Agaricus purpureofuscus, Pk.
See ***Mycena purpureofusca,*** Pk.

Agaricus purus, P.
See ***Mycena pura,*** (P.) Fr.

Agaricus pusillomyces, Pk.
See ***Lepiota pusillomyces,*** Pk.

Agaricus pusillus, (P.) Fr.
See ***Volvaria pusilla,*** (P.) Fr.

Agaricus pusillus, Fr. non P.
See ***Agaricus pusiolus,*** Fr.

Agaricus pusillus, Pk.

NOTE. This species is assigned to *Agaricus* proper. It should be borne in mind that there is also *Agaricus* (*Volvaria*) *pusillus,* (P.) Fr. S. M. **1**: 279 found in America which is here placed under *Volvaria pusilla,* (P.) Fr.

Pk. Rept. N. Y. Mus. **54**[1]: 152. *d.* Dec. 1901.
Longyear, Rept. Mich. Acad. **3**: 60. 1902. and **4**: 115. 1904.
Conant, Bull. Boston Myc. Club 19: 5 Feb. 1903.

Agaricus pusiolus, Fr.
See ***Naucoria pusiola,*** Fr.

Agaricus putredinis, B. & C.
See ***Pleurotus putredinis,*** B. & C.

Agaricus putrigenus, Pk.
See ***Crepidotus putrigenus,*** Pk.

Agaricus pyrrholepis, Mont.
See ***Hebeloma pyrrholepidum,*** Mont.

Agaricus pyrrhus, B. & C.
See ***Crepidotus pyrrhus,*** B. & C.

Agaricus pyxidatus, Bull.
See ***Omphalia pyxidata,*** (Bull.) P.

Agaricus quadratus, B. & C.
See ***Nolanea quadrata,*** B. & C.

Agaricus quercinus, L.
See ***Dædalea quercina,*** (L.) P.

Agaricus racemosus, P.
See ***Collybia racemosa,*** (P.) Fr.

Agaricus radiatus, Bolt.
See ***Coprinus radiatus,*** (Bolt.) P.

Agaricus radicatellus, Pk.
See ***Mycena radicatella,*** Pk.

Agaricus radicatus, Relh.
See ***Collybia radicata,*** (Relh.) Fr.

Agaricus radicosus, Bull.
See ***Pholiota radicosa,*** (Bull.) Fr.

Agaricus radiozonarius, Johnson.
See ***Clitocybe radiozonaria,*** Johnson.

Agaricus Radius, Johnson.
See ***Mycena Radius,*** Johnson.

Agaricus ramealis, Bull.
See ***Marasmius ramealis,*** (Bull.) Fr.

Agaricus ramentaceus, Bull.
See ***Armillaria ramentacea,*** (Bull.) Fr.

Agaricus ramosus, Bull.
See ***Collybia ramosa,*** (Bull.) Fr.

Agaricus Ravenelii, B. & C.
See ***Amanita Ravenelii,*** B. & C.

Agaricus recutitus, Fr.
See ***Amanita recutita,*** Fr.

Agaricus reflexus, Muhl.

NOTE. This is probably *Pholiota squarrosa,* (Muell.) Fr.

Muhl. Cat. Pl. Am. Sept. 1 ed. 104. 1813. 2 ed. 107. 1818.

Agaricus repandus, Bull.
See ***Entoloma repandum,*** (Bull.) Fr.

Agaricus resplendens, Fr.
See ***Tricholoma resplendens,*** Fr.

Agaricus reticeps, Mont.
See ***Clitocybe reticeps,*** Mont.

Agaricus reticulatus, Johnson.
See ***Tricholoma reticulatum,*** Johnson.

Agaricus retirugis, Fr.
See ***Panæolus retirugis,*** Fr.

Agaricus rhacodes, Vitt.
See ***Lepiota rhacodes,*** (Vitt.) Fr.

Agaricus rhacodes, Pk. 22 Rept.
See ***Lepiota Americana,*** Pk.

Agaricus Rhacodium, B. & C.
See ***Pleurotus Rhacodium,*** B. & C.

Agaricus rhagadiosus, Fr.
See ***Armillaria rhagadiosa,*** Fr.

Agaricus rheicolor, B.
See ***Collybia rheicolor,*** B.

Agaricus rhinarius, B. & C.
See ***Tricholoma rhinarium,*** B. & C.

Agaricus rhodocylix, Lasch.
See ***Eccilia rhodocylix,*** (Lasch) Fr.

Agaricus Rhododendri, Pk.
See ***Omphalia Rhododendri,*** Pk.

Agaricus rhodophaeus, Mont.
See ***Psilocybe rhodophæa,*** Mont.

Agaricus rhodopolius, Fr.
See ***Entoloma rhodopolium,*** Fr.

Agaricus rhodoxanthus, S.
See ***Paxillus rhodoxanthus,*** (S.) Pk.

Agaricus rhyssosporus, Mont.
See ***Omphalia rhyssospora,*** Mont.

Agaricus rhytopilus, Mont.
Massee, Jour. of Bot. **30:** 196. July 1892. West Indies.

Agaricus Ricensis, Fr.
See ***Flammula Ricensis,*** Fr.

Agaricus rigens, S. Am. Bor. no. 157.
Misprint for ***Agaricus ringens.***

Agaricus rimosus, Bull.
See ***Inocybe rimosa,*** (Bull.) Fr.

Agaricus ringens, var. **tenuissimus,** Fr.
See ***Lentinus tenuissimus,*** (S.) Fr.

Agaricus rivulosus, P.
See ***Clitocybe rivulosa,*** (P.) Fr.

Agaricus Robinsonii, B. & Mont.
See ***Entoloma Robinsonii,*** B. & Mont.

Agaricus robustus, A. & S.
See ***Armillaria robusta,*** (A. & S.) Fr.

Agaricus Rodmani, Pk.
Pk. Rept. N. Y. Mus. **36:** 45. *d.* 1885.
Macoun, Ottawa Nat. **2:** 142. Feb. 1889.
Forster, Boston Med. & Surg. Jour. **123:** 454 (1). 6 Nov. 1890.
Pk. Country Gent. **59:** 518 (28) *f.* 12 July 1894.
Millsp. & Nutt. Publ. Field Columb. Mus. Bot. **1:** 160. Jan. 1896.
Pk. Rept. N. Y. Mus. **48:** 235 (137) *pl.* 9, *f.* 1–6. March 1897.
[Underw.] N. Y. Myc. Club 16. 1898.
Smith, C. O., Rhodora **1:** 161. *d.* 1 Sept. 1899.
Longyear, Rept. Mich. Bd. Agr. **1898:** 92. 1899.
Underw. Moulds 122. 1899.
Atk. in Bailey's Cycl. Am. Hort. 1043. 1900.
Atk. Mushrooms 20 *d. f.* 17. 20 Oct. 1900.
McIlvaine & Macadam, Am. Fung. 336. *d.* 1900.
Kellerm. Ohio Myc. Bull. **1:** 22. *f.* 28. 24 June 1903.
Psalliota Rodmani, Pk.
Taylor, Food Products 2: 21. 1893.
Lloyd, Myc. Notes 29. Nov. 1899.

Agaricus roridulus, B. & C.
See ***Mycena roridula,*** B. & C.

Agaricus roridus, Fr.
See ***Mycena rorida,*** Fr.

Agaricus rosaceus, P.
See ***Russula rosacea*** (P.) Fr.

Agaricus rosaceus, S. Syn. Car. 746.
See ***Russula rubra,*** Fr.

Agaricus rosellus, Fr.
See ***Mycena rosella,*** Fr.

Agaricus roseoalbus, Fr.
See ***Pluteus roseoalbus,*** Fr.

Agaricus roseocandidus, Pk.
See ***Mycena roseocandida,*** Pk.

Agaricus roseus, Bull.
See ***Mycena pura,*** (P.) Fr.

Agaricus Rotula, Scop.
See ***Marasmius Rotula,*** (Scop.) Fr.

Agaricus ruber, S. Syn. Car. 738.
See ***Lactarius helvus,*** Fr.

Agaricus ruber, Fr.
See ***Russula rubra,*** Fr.

Agaricus rubescens, Fr.
See ***Amanita rubescens,*** P.

Agaricus rubescentifolius, Pk.
See ***Collybia colorea,*** Pk., var. ***rubescentifolia,*** Pk.

Agaricus Rubi, B.
See ***Crepidotus Rubi,*** B.

Agaricus rubicundus, Pk.
See ***Tricholoma Russula,*** (Schæff.) Fr.

Agaricus rubiginosus, P.
See ***Galera rubiginosa,*** (P.) Fr.

Agaricus rubromarginatus, Fr.
See ***Mycena rubromarginata,*** Fr.

Agaricus rubrotinctus, Pk.
See ***Lepiota rubrotincta,*** Pk.

Agaricus rubrotinctus, B. & C.
See ***Clitocybe rubrotincta,*** B. & C.

Agaricus rufocarneus, B.
See ***Nolanea rufocarnea,*** B.

Agaricus rufo-olivaceus, Fr.
See ***Cortinarius rufo-olivaceus,*** Fr.

Agaricus rufo-violaceus.
? Error for ***Agaricus rufo-olivaceus,*** Fr.

Agaricus rufulus, B. & Br.
See ***Omphalia demissa,*** Fr.

Agaricus rugosodiscus, Pk.
See ***Omphalia rugosodisca,*** Pk.
See ***Mycena rugosodisca,*** (Pk.) Sacc. Syll.
See ***Collybia rugosodisca,*** Pk.

Agaricus rugosus, Fr.
See ***Mycena rugosa,*** Fr.

Agaricus rugulosus, S.

S. Syn. Car. 83 (57) no. 653. *d.* 1822.

Agaricus rupincola, Mont.
See ***Psathyrella rupincola***, Mont.

Agaricus Russula, Schæff.
See ***Tricholoma Russula***, (Schæff.) Fr.

Agaricus russuloides, Pk.
See ***Amanita russuloides***, Pk.

Agaricus rusticus, Fr.
See ***Omphalia rustica***, Fr.

Agaricus rutilans, Schæff.
See ***Tricholoma rutilans***, (Schæff.) Fr.

Agaricus rutilescens, Pk.
Pk. Bull. Torr. Bot. Club **31**: 179. *d.* 28 April 1904.

Agaricus sabuletorum, B. & C.
See ***Inocybe lanuginosa***, (Bull.) Fr.

Agaricus sacchariferus, B. & Br.
See ***Mycena saccharifera***, B. & Br.

Agaricus saccharinophilus, Pk.
See ***Hypholoma saccharinophilum***, Pk.

Agaricus salignus, P.
See ***Pleurotus salignus***, (P.) Fr.

Agaricus Sallei, B.
B. Ann. Nat. Hist. II. **9**: 193. *d.* March 1852. West Indies.
Sacc. Cub. & Manc. Syll. **5**: 995. *d.* 28 May 1887.

Agaricus salmoneus, Pk.
See ***Entoloma salmoneum***, Pk.

Agaricus sambucinus, Fr.
See ***Inocybe sambucina***, Fr.

Agaricus sandicinus, Fr.
See ***Clitocybe sandicina***, Fr.

Agaricus sanguineus, Wulf.
See ***Cortinarius sanguineus***, (Wulf.) Fr.

Agaricus sanguineus, B. & C.
See ***Omphalia sanguinea***, B. & C.

Agaricus sanguinolentus, A. & S.
See ***Mycena sanguinolenta***, A. & S.

Agaricus sapidus, Kalchbr.
See ***Pleurotus sapidus***, Kalchbr.

Agaricus sapineus, Fr.
See ***Flammula sapinea***, Fr.

Agaricus saponaceus, Fr.
See ***Tricholoma saponaceum***, Fr.

Agaricus sarcophyllus, Pk.
See ***Hebeloma sarcophyllum***, Pk.

Agaricus scabellus, A. & S.
See ***Inocybe scabella***, (A. & S.) Fr.

Agaricus scabrinellus, Pk.
See ***Entoloma scabrinellum***, Pk.

Agaricus scabriusculus, Pk.
See ***Omphalia umbellifera***, (L.) Fr., var. ***scabriuscula***, Pk.

Agaricus scabrosus, Fr.
See ***Leptonia scabrosa***, Fr.

Agaricus scalpturatus, Fr.
See ***Tricholoma scalpturatum,*** Fr.

Agaricus scatigena, B. & C.
See ***Psilocybe scatigena,*** B. & C.

Agaricus scaurus, Fr.
See ***Cortinarius scaurus,*** Fr.

Agaricus Schumacheri, Pk. 24 Rept.
See ***Clitocybe nebularis,*** (Batsch) Fr.

Agaricus scobifer, B. & C.
See ***Pholiota scobifera,*** B. & C.

Agaricus scorodonius, Fr.
See ***Marasmius scorodonius,*** Fr.

Agaricus scorpioides, Fr.
See ***Naucoria scorpioides,*** Fr.

Agaricus scyphoides, Fr.
See ***Omphalia scyphoides,*** Fr.

Agaricus sejunctus, Sow.
See ***Tricholoma sejunctum,*** (Sow.) Fr.

Agaricus semicaptus, B. & C.
See ***Pleurotus semicaptus,*** B. & C.

Agaricus semiglobatus, Batsch.
See ***Stropharia semiglobata,*** (Batsch) Fr.

Agaricus semihærens, B. & C.
See ***Collybia semihærens,*** B. & C.

Agaricus semilanceatus, Fr.
See ***Psilocybe semilanceata,*** Fr.

Agaricus semiorbicularis, Bull.
See ***Naucoria semiorbicularis,*** (Bull.) Fr.

Agaricus semiovatus, Sow.
See ***Anellaria separata,*** (L.) Karst.

Agaricus semitectus, B. & C.
See ***Pleurotus semitectus,*** B. & C.

Agaricus semivestitus, B. & Br.
See ***Psathyra semivestita,*** B. & Br.

Agaricus separatus, L.
See ***Anellaria separata,*** (L.) Karst.

Agaricus sepiarius, Wulf.
See ***Lenzites sepiaria,*** (Wulf.) Fr.

Agaricus septicus, Fr.
See ***Pleurotus septicus,*** Fr.

Agaricus sericellus, Fr.
See ***Entoloma sericellum,*** Fr.

Agaricus sericeus, S. Syn. Car. 665.
See ***Entoloma sericellum,*** Fr.

Agaricus sericeus, Bull.
See ***Entoloma sericeum,*** (Bull.) Fr.

Agaricus serotinoides, Pk.
See ***Pleurotus petaloides,*** (Bull.) Fr.

Agaricus serotinus, Schrad.
See ***Pleurotus serotinus,*** (Schrad.) Fr.

Agaricus serotinus, Pk. in Day's Cat.
See ***Pleurotus petaloides,*** (Bull.) Fr.

Agaricus serrulatus, Fr.
See ***Leptonia serrulata,*** Fr.

Agaricus (Pleurotus) **sestonoides,** Cke.

NOTE. Known to us only at the place cited below.

Hark. & Moore, Cat. Pac. Fung. 4. Feb. 1880.

Agaricus setipes, Fr.

NOTE. The only reference is the one given below which is probably referable to *Omphalia setipes,* Fr.

Curtis, M. A., Bot. N. Car. 87. 1867.

Agaricus setisedus, S.
See ***Clitocybe setiseda,*** (S.) Fr.

Agaricus setosus, (Sow.)
See ***Mycena setosa,*** (Sow.) Fr.

Agaricus Seymourianus, Pk.
See ***Clitopilus Seymourianus,*** Pk.

Agaricus siccus, S.
See ***Marasmius siccus,*** (S.) Fr.

Agaricus sideroides, Bull.
See ***Naucoria sideroides,*** (Bull.) Fr.

Agaricus Sienna, Pk.
See ***Tricholoma Sienna,*** Pk.

Agaricus silaceus, S. Syn. Car. 726.
See ***Flammula spumosa,*** Fr.

Agaricus siliginеus, Fr.
See ***Galera siliginea,*** Fr.

Agaricus silvaticus, Schæff.

NOTE. See note under *Agaricus placomyces,* Pk.

Lea, Cat. Pl. Cin. 53. 1849.
M. A. Curtis, Bot. N. Car. 90. 1867.
Cke. Handbook 138. *d.* 1871.
Pk. Rept. N.Y. Mus. **26**: 59. April 1874.
Cke. & B. Fungi 89. 1875.
Farl. Bull. Bussey Inst. **1**: 436. March 1876.
Pk. Rept. N. Y. Mus. **28**: 85. 1876.
Johnson, Bull. Minn. Acad. **1**: 235. 1877 and Rept. Minn. Surv. **5**: 72. 1877.
James, Jour. Cin. Soc. **2**: 64 (23). April 1879.
Hark. & Moore, Cat. Pac. Fung. 7. Feb. 1880.
Morg. Jour. Cin. Soc. **6**: 112. *d.* July 1883.
Bundy, Geol. Wis. 1873–79, **1**: 397. 1883.
Pk. in Day's Cat. Bull. Buf. Soc. **4**: 179 (115). 1883.
Pk. Rept. N. Y. Mus. **36**: 48. *d.* 1885.
Sacc. Cub. & Manc. Syll. **5**: 1000. *d.* 28 May 1887.
Macbride, Bull. Univ. Iowa **1**: 188. *d.* June 1890.
Banning in Pk. Rept. N. Y. Mus. **44**: 182 (70). Dec. 1891.
Pk. Country Gent. **59**: 518 (32). 12 July 1894.
Underw. Proc. Ind. Acad. **1893**: 61. Aug. 1894.
Kellerm. & Werner, Geol. Ohio **7**^{2}: 315. Jan. 1895.
Millsp. & Nutt. Publ. Field Columb. Mus. Bot. **1**: 160. Jan. 1896.
McClatchie, Proc. S. Calif. Acad. **1**: 382. 5 June 1897.
Atk. Bull. Cornell Univ. **3**: 25. 25 June 1897.
Pk. Bull. N. Y. Mus. **6**: 213. July 1899.

Smith, C. O., Rhodora **1**: 163. 1 Sept. 1899.
Underw. Moulds 122. 1899.
Herbst, Fungal Fl. Lehigh Valley 73. *d.* 1899.
Atk. in Bailey's Cycl. Am. Hort. 1043. 1900.
McIlvaine & Macadam, Am. Fung. 334. *d.* 1900.
Nelson, Rept. Wyo. Exp. Sta. **10**: (38). 1900.
Pound & Clements, Bot. Surv. Nebr. 5: 25. 30 March 1901.
Sweetser, Bull. Pacific Univ. **14**: 12. May 1901.
Earle in Mohr, Contr. U. S. Nat. Herb. **6**: 224. 31 July 1901.
Williamson, Proc. Ind. Acad. **1900**: 165. 1901.
Psalliota silvatica, Fr.
Henn. in Engler & Prantl, Pflanzenfam. **1**^{1**}: 239. *d.* 1898.
Lloyd, Myc. Notes 27. *d.* Nov. 1899.
Perry, Agricultural Student **6**: 179. May 1900. and Ohio Univ. Bull. IV. 30: 7. May 1900.
Hyams, Bull. N. Car. Exp. Sta. 177: 45. *d.* Dec. 1900.

Agaricus silvicola, Vitt.

NOTE. See *Agaricus abruptus,* Pk. to which some of the following references may belong rather than to *Agaricus silvicola,* Vitt.

Millsp. & Nutt. Publ. Field Columb. Mus. Bot. **1**: 160. Jan. 1896.
Webster, Am. Kitchen Mag. **6**: 217. Feb. 1897 and Taylor, Hdbk. Mushrooms 2: 24. 1897.
Smith, C. O., Rhodora **1**: 163. 1 Sept. 1899.
Atk. Mushrooms 22 *d. f. 19, 20.* 20 Oct. 1900.
Pk. Mem. N. Y. Mus. **3**: 164. *d. pl. 59, f. 1–7.* Nov. 1900.
McIlvaine & Macadam, Am. Fung. 343. *d. pl. 91, f. 2.* 1900.
Atk. in Bailey's Cycl. Am. Hort. 1043. *d.* 1900.
Hay, Bull. N. H. Soc. N. B. **4**: 343. 1901 and Bull. N. H. Soc. N. B. **5**: 119. 1903.
Brown & Fernekes, Bull. Wis. Nat. Hist. Soc. II. **2.** 46. Jan. 1902.
Conant, Bull. Boston Myc. Club 19: 5 Feb. 1903.
Psalliota silvicola, Fr.
Taylor, Food Products 2: 21. 1893.
Lloyd, Myc. Notes 28. *d.* Nov. 1899.
Perry, Agricultural Student **6**: 179. May 1900 and Ohio Univ. Bull. IV. 30: 7. May 1900.
Hyams, Bull. N. Car. Exp. Sta. 177: 45. *d.* Dec. 1900.

Agaricus silvicola, Pk. non Vitt.
See ***Agaricus abruptus,*** Pk.

Agaricus silvicola, var. **abruptus,** Conant.
See ***Agaricus abruptus,*** Pk.

Agaricus simillimus, Pk.
See ***Collybia acervata,*** Fr.

Agaricus sinapizans, Fr.
See ***Hebeloma sinapizans,*** Fr.

Agaricus sinopicus, Fr.
See ***Clitocybe sinopica,*** Fr.

Agaricus sinuatus, Bull.
See ***Entoloma sinuatum,*** (Bull.) Fr.

Agaricus siparioides, B. & C.
See ***Naucoria siparioides,*** B. & C.

Agaricus soleatus, Howe.
See ***Amanitopsis volvatus,*** (Pk.) Sacc.

Agaricus solidipes, Pk.
See ***Panæolus solidipes,*** Pk.

Agaricus solidipes, Pk.
Pk. Bull. Torr. Bot. Club **31 :** 179. *d.* 28 April 1904.

Agaricus solitarius, Bull.
See ***Amanita solitaria,*** (Bull.) Fr.
See also ***Amanita strobiliformis,*** (Vitt.) Fr.

Agaricus sordarius, P.

NOTE. *Agaricus sordarius,* P. is referred by authors to *Clitocybe obtexta,* (Lasch) Fr. but we do not know whether the citation below relates to the same or not.

S. Syn. Car. 84 (58) no. 668. 1822.

Agaricus sordescens, B. & C.
See ***Lepiota sordescens,*** B. & C.

Agaricus sordidulus, Pk.
See ***Hebeloma sordidulum,*** Pk.

Agaricus sordidus, Schum.
See ***Tricholoma sordidum,*** (Schum.) Fr.

Agaricus spadiceus, Schæff.
See ***Psilocybe spadicea,*** (Schæff.) Fr.

Agaricus sparteus, Fr.
See ***Galera spartea,*** Fr.

Agaricus spathulatus, S. Syn. Car. 807.
See ***Panus angustatus,*** B.

Agaricus spathulatus, P.
See ***Pleurotus petaloides,*** (Bull.) Fr., var. ***spathulatus,*** (P.) Fr.

Agaricus speciosus, Fr.
See ***Volvaria speciosa,*** Fr.

Agaricus spectabilis, Fr.
See ***Pholiota spectabilis,*** Fr.

Agaricus speireus, Fr.
See ***Mycena speirea,*** Fr.

Agaricus spermaticus, (Paul.) Fr.
See ***Tricholoma spermaticum,*** (Paul.) Fr.

Agaricus sphærosporus, B.
See ***Omphalia sphærospora,*** B.

Agaricus sphærosporus, Pk.
Pk. Bull. Torr. Bot. Club. **31 :** 181. *d.* 28 April 1904.

Agaricus Sphagnorum, P.
See ***Galera Sphagnorum,*** (P.) Fr.

Agaricus spinulifer, Pk.
See ***Marasmius cohærens,*** (P.) Cke.

Agaricus spissus, Fr.
See ***Amanita spissa,*** Fr.

Agaricus Spraguei, B. & C.
See ***Collybia Spraguei,*** B. & C.

Agaricus spretus, Pk.
See ***Amanita spreta,*** Pk.

Agaricus spumosus, Fr.
See ***Flammula spumosa,*** Fr

Agaricus squalens, Fr.
See ***Psilocybe squalens,*** Fr.

Agaricus squalidellus, Pk.
See ***Psilocybe squalidella,*** Pk.

Agaricus squamosus, P.
See ***Stropharia squamosa,*** (P.) Fr.

Agaricus squarrosoides, Pk.
See ***Pholiota squarrosoides,*** Pk.

Agaricus squarrosus, Muell.
See ***Pholiota squarrosa,*** (Muell.) Fr.

Agaricus stellatosporus, Pk.
See ***Inocybe stellatospora,*** (Pk.) Earle.

Agaricus stellatus, Fr.
See ***Omphalia stellata,*** Fr.

Agaricus stercorarius, Schum.
See ***Stropharia stercoraria,*** (Schum.) Fr.

Agaricus stereocephalus, B. & C.
See ***Collybia stereocephala,*** B. & C.

Agaricus sterilomarginatus, Pk.
See ***Pluteus sterilomarginatus,*** Pk.

Agaricus Sterlingii, Pk.
Pk. Bull. Torr. Bot. Club **29**: 73. *d.* 25 Feb. 1902.

Agaricus sterquilinus, Fr.
See ***Coprinus sterquilinus,*** Fr.

Agaricus stipatus, Auct.

NOTE. It is impossible to say to what species the following references belong but they probably belong to some species of *Hypholoma* and perhaps to *Hypholoma appendiculatum,* (Bull.) Fr.

S. Syn. Car. 86 (60) no. 727. 1822.
S. Syn. Am. Bor. 151 no. 247. 1834.
Lea, Cat. Pl. Cin. 53. 1849.
James, Jour. Cin. Soc. **2**: 64 (23). April 1879.

Agaricus stipitarius, Fr.
See ***Collybia stipitaria,*** Fr.

Agaricus stipticus, Bull.
See ***Panus stipticus,*** (Bull.) Fr.

Agaricus stipularis, Fr.
See ***Mycena stipularis,*** Fr.

Agaricus strangulatus, Fr.
See ***Amanitopsis strangulata,*** (Fr.) Roze.

Agaricus striatellus, Batsch.
See ***Psathyrella disseminata,*** (P.) Fr.

Agaricus striatifolius, Pk.
See ***Tricholoma striatifolium,*** Pk.

Agaricus striatulus, P.
See ***Pleurotus striatulus,*** (P.) Fr.

Agaricus striatus, Swartz.
See ***Lenzites striata,*** (Swartz) Fr.

Agaricus strictior, Pk.
See ***Entoloma strictius,*** Pk.

Agaricus strigosus, S.
See ***Lentinus Lecomtei,*** Fr.
See ***Lentinus strigosus,*** (S.) Fr.

Agaricus strobiliformis, Vitt.
See ***Amanita strobiliformis,*** (Vitt.) Fr.

Agaricus strobilinus, P.
See ***Mycena strobilina,*** P.

Agaricus strombodes, B. & Mont.
See ***Omphalia strombodes,*** B. & Mont.

Agaricus stupparius, B. & C.
See ***Collybia stupparia,*** B. & C.

Agaricus stylobates, P.
See ***Mycena stylobates,*** P.

Agaricus subareolatus, Pk.
See ***Pleurotus subareolatus,*** Pk.

Agaricus subatratus, Fr.
See ***Psathyrella subatrata,*** Fr.

Agaricus subbarbatus, B. & C.
See ***Pleurotus subbarbatus,*** B. & C.

Agaricus subcæruleus, Pk.
See ***Mycena subcærulea,*** Pk.

Agaricus subclypeolarius, B. & C.
See ***Lepiota subclypeolaria,*** B. & C.

Agaricus subdecurrens, Ell. & Ev.
See ***Inocybe subdecurrens,*** Ell. & Ev.

Agaricus subdulcis, Bull.
See ***Lactarius subdulcis,*** (Bull.) Fr.

Agaricus subexilis, Pk.
See ***Inocybe subexilis,*** Pk.

Agaricus subglobosus, A. & S.
See ***Naucoria subglobosa,*** (A. & S.) Fr.

Agaricus subhirtus, Pk.
See ***Clitocybe subhirta,*** Pk.

Agaricus subincarnatus, Pk.
See ***Mycena subincarnata,*** Pk.

Agaricus subinvolutus, Batsch.
See ***Clitocybe subinvoluta,*** (Batsch) Fr.

Agaricus sublateritius, Fr.
See ***Hypholoma sublateritium,*** Fr.

Agaricus subochraceus, Pk.
See ***Inocybe subochracea,*** Pk.

Agaricus subpalmatus, Fr.
See ***Pleurotus subpalmatus,*** Fr.

Agaricus subpellucidus, B. & C.
See ***Omphalia subpellucida,*** B. & C.

Agaricus subremotus, B. & C.
See ***Lepiota subremota,*** B. & C.

Agaricus subrufescens, Pk.
See ***Agaricus fabaceus,*** B.

Agaricus subrufescens, Ell. & Ev.
See ***Tricholoma subrufescens,*** Ell. & Ev.

Agaricus subtortus, P.
See ***Cortinarius subtortus,*** (P.) Fr.

Agaricus subversus, Schum.
See ***Pleurotus perpusillus,*** Fr.

Agaricus subviridis, B. & C.
See ***Psilocybe subviridis,*** B. & C.

Agaricus subzonalis, Pk.
See ***Clitocybe subzonalis,*** Pk.

Agaricus succosus, Pk.
See ***Mycena succosa,*** (Pk.) Sacc. Syll.

Agaricus sudus, Fr.
See ***Tricholoma sudus,*** Fr.

Agaricus sulcatipes, Pk.
See ***Galera sulcatipes,*** Pk.

Agaricus sulcatus, L.
See ***Mycena galericulata,*** (Scop.) Fr.

Agaricus Sullivantii, Mont.
See ***Psilocybe Sullivantii,*** Mont.

Agaricus sulphureoides, Pk.
See ***Pleurotus sulphureoides,*** Pk.

Agaricus sulphureus, Bull.
See ***Tricholoma sulphureum,*** (Bull.) Fr.

Agaricus tabularis, Pk.
Pk. Bull. Torr. Bot. Club **25**: 325. *d.* 8 June 1898.
McIlvaine & Macadam, Am. Fung. 347. *d.* 1900.
Sacc. & Syd. Syll. **16**: 114. *d.* 1 Feb. 1902.
Psalliota tabularis, Lloyd.
Lloyd, Myc. Notes 30. Nov. 1899.

Agaricus Tagetes, B. & Mont.
See ***Omphalia Tagetes,*** B. & Mont.
See ***Collybia Tagetes,*** (B. & Mont.) Sacc.

Agaricus tardus, S. Syn. Car. 782.
See ***Clitocybe cyathiformis,*** (Bull.) Fr.

Agaricus Taylori, B.
See ***Volvaria Taylori,*** B.

Agaricus temnophyllus, Pk.
See ***Pholiota temnophylla,*** Pk.

Agaricus tenacellus, P.
See ***Collybia tenacella,*** (P.) Fr.

Agaricus tener, Schæff.
See ***Galera tenera,*** (Schæff.) Fr.

Agaricus teneroides, Pk.
See ***Galera teneroides,*** Pk.

Agaricus tenerrimus, B.
See ***Mycena tenerrima,*** B.

Agaricus tenuipes, S.
See ***Collybia tenuipes,*** (S.) Sacc. Syll.

Agaricus tenuis, Bolt.
See ***Mycena tenuis,*** (Bolt.) Fr.

Agaricus tenuissimus, S.
See ***Lentinus tenuissimus,*** (S.) Fr.

Agaricus tephroleucus, P.
See ***Hygrophorus tephroleucus,*** (P.) Fr.

Agaricus tephromelas, P.
See ***Pleurotus tremulus,*** (Schæff.) Fr.

Agaricus tephrostictus, B. & C.
See ***Pluteus tephrostictus,*** B. & C.

Agaricus terræolens, Pk.
See ***Tricholoma terræolens,*** Pk.

Agaricus terreus, Schæff.
See ***Tricholoma terreum,*** (Schæff.) Fr.

Agaricus tessellatus, P.
See ***Pleurotus tessellatus,*** (P.) Fr.

Agaricus testaceus, A. & S.
See ***Lactarius volemus,*** Fr.

Agaricus Texensis, B. & C.
See ***Collybia Texensis,*** B. & C.

Agaricus theiogalus, Bull.
See ***Lactarius theiogalus,*** (Bull.) Fr.

Agaricus thujinus, Pk.
See ***Tricholomia thujinum,*** Pk.

Agaricus tigrinus, Bull.
See ***Lentinus tigrinus,*** (Bull.) Fr.

Agaricus tiliophilus, Pk.
See ***Crepidotus tiliophilus,*** Pk.

Agaricus Tintinabulum, Fr.
See ***Mycena Tintinabulum,*** Fr.

Agaricus titubans, Bull.
See ***Bolbitius titubans,*** (Bull.) Fr.

Agaricus tomentellus, Auct. Amer.
See ***Lentinus plumatus,*** (Walt.) Fr.

Agaricus tomentosulus, Pk.
See ***Pleurotus tomentosulus,*** Pk.

Agaricus tomentosus, Ell. & Ev.
See ***Inocybe subdecurrens,*** Ell. & Ev.

Agaricus torminosus, Schæff.
See ***Lactarius torminosus,*** (Schæff.) Fr.

Agaricus tortipes, Mont.
See ***Galera tortipes,*** Mont.

Agaricus torulosus, P.
See ***Lentinus carneotomentosus,*** (Batsch) Schrt.

Agaricus torulosus, P. sec. S. Syn. Car. 797.
See ***Panus conchatus,*** (Bull.) Fr.

Agaricus trabeus, P.
See ***Lenzites trabeus,*** (P.) Fr.

Agaricus transmutans, Pk.
See ***Tricholoma transmutans,*** Pk.

Agaricus trechisporus, B.
See ***Inocybe trechispora,*** B.

Agaricus tremulus, Schæff.
See ***Pleurotus tremulus,*** (Schæff.) Fr.

Agaricus Trentonensis, Pk.
See ***Tricholoma Trentonense,*** Pk.

Agaricus trepidus, Fr.
See ***Psathyrella trepida,*** Fr.

Agaricus tricholepis, Fr.
See ***Pilosace tricholepis,*** Fr.

Agaricus trichopus, A. & S.
See ***Tricholoma flavobrunneum,*** Fr.

Agaricus tridens, Moore.

NOTE. This is possibly sterile *Lentinus lepiaeus,* (Schæff.) Fr.

Hark. & Moore, Cat. Pac. Fungi 46. *d.* Feb. 1880 and Bull. Torr. Bot. Club. **7**: 58. May 1880.

Agaricus triscopus, Fr.
See ***Naucoria triscopus,*** Fr.

Agaricus trullæformis, Fr.
See ***Clitocybe trullæformis,*** Fr.

Agaricus trullisatus, Ell.
See ***Clitocybe trullisata,*** Ell.

Agaricus truncicola, Pk.
See ***Clitocybe truncicola,*** Pk.

Agaricus tubæformis, S.
See ***Lentinus friabilis,*** Fr.

Agaricus tuberculosus, Fr.
See ***Pholiota tuberculosa,*** Fr.

Agaricus tuberosus, Bull.
See ***Collybia tuberosa,*** (Bull.) Fr.

Agaricus tumulosus, Kalchb.
See ***Clitocybe tumulosa,*** (Kalchb.) Fr.

Agaricus turbidus, Fr.
See ***Entoloma turbidum,*** Fr.

Agaricus turbinatus, Bull.
See ***Cortinarius turbinatus,*** (Bull.) Fr.

Agaricus udus, P.
See ***Psilocybe uda,*** (P.) Fr.

Agaricus ulmarius, Bull.
See ***Pleurotus ulmarius,*** (Bull.) Fr.

Agaricus umbelliferus, L.
See ***Omphalia umbellifera,*** (L.) Fr.

Agaricus umbilicatus, Schæff.
See ***Omphalia umbilicata,*** (Schæff.) Fr.

Agaricus umbonatescens, Pk.
See ***Stropharia umbonatescens,*** Pk.

Agaricus umboninotus, Pk.
See ***Inocybe umboninota,*** Pk.

Agaricus umbrinus, P.
See ***Lactarius umbrinus,*** (P.) Fr.

Agaricus umbrosus, P.
See ***Pluteus umbrosus,*** (P.) Fr.

Agaricus undatus, Fr.
See ***Clitopilus undatus,*** Fr.

Agaricus undulatellus, Pk.
See ***Leptonia undulatella,*** Pk.

Agaricus unicolor, Vahl.
See ***Pholiota unicolor,*** (Vahl.) Fr.

Agaricus unitinctus, Pk.
See ***Clitopilus unitinctus,*** Pk.

Agaricus ustalis, Fr.
See ***Tricholoma ustale,*** Fr.

Agaricus vaccinus, P.
See ***Tricholoma vaccinum,*** (P.) Fr.

Agaricus vaginatus, Bull.
See ***Amanitopsis vaginata,*** (Bull.) Roze.

Agaricus variabilis, P.
See ***Claudopus variabilis,*** (P.) Cke.

Agaricus variegatus, Scop.
See ***Tricholoma variegatum,*** (Scop.) Fr.

Agaricus variicolor, B. & C.
See ***Leptonia variicolor,*** B. & C.

Agaricus vellereus, Fr.
See ***Lactarius vellereus,*** Fr.

Agaricus velutinus, P.
See ***Hypholoma velutinum,*** (P.) Fr.

Agaricus velutipes, Curt.
See ***Collybia velutipes,*** (Curt.) Fr.

Agaricus venifer, B. & C.
See ***Hebeloma venifer,*** B. & C.

Agaricus ventricosus, Bull.
See ***Collybia ventricosa,*** (Bull.) Fr.

Agaricus vermifluus, Pk.
See ***Pholiota vermiflua,*** Pk.

Agaricus vernalis, Pk.
See ***Naucoria vernalis,*** Pk.

Agaricus vernus, Auct. Amer.
See ***Amanita phalloides,*** Fr.

Agaricus versicolor, Bull.
See ***Lenzites variegata,*** Fr.

Agaricus versipellis, Fr.
See ***Hebeloma versipellis,*** Fr.

Agaricus versutus, Pk.
See ***Crepidotus versutus,*** Pk.

Agaricus vervacti, Fr.
See ***Naucoria vervacti,*** Fr.

Agaricus vexans, Pk.
See ***Mycena vexans,*** Pk.

Agaricus vialis, S. Syn. Car. 609.

NOTE. It is impossible to state to what species the following citation relates.

S. Syn. Car. 82 (56) no. 609. 1822.

Agaricus vilescens, Pk.
See ***Clitocybe vilescens,*** Pk.

Agaricus villaticus, Brond.
See ***Agaricus campestris,*** L., var. ***villaticus,*** Brond.

Agaricus villosus, Fr.
See ***Pholiota villosa,*** Fr.

Agaricus violaceocinereus, P.
See ***Cortinarius violaceocinereus,*** (P.) Fr.

Agaricus violaceofulvus, S. Am. Bor. 230.
See ***Pleurotus pinsitus,*** Fr.

Agaricus violaceus, L.
See ***Cortinarius violaceus,*** (L.) Fr.

Agaricus virescens, Schæff.
See ***Russula virescens,*** (Schæff.) Fr.

Agaricus virescens, S. Syn. Car. 761.
See ***Russula furcata,*** P.

Agaricus virescens, Fr.
See ***Amanita virescens,*** P.

Agaricus virescens, Pk.
See ***Tricholoma virescens,*** Pk.

Agaricus virgineus, Wulf.
See ***Hygrophorus virgineus,*** (Wulf.) Fr.

Agaricus viridis, With.
See ***Clitocybe viridis,*** (Wulf.) Fr.

Agaricus viriditinctus, Pk.
See ***Tricholoma virescens,*** Pk.

Agaricus virosus, Fr.
See ***Amanita virosa,*** Fr.

Agaricus viscidus, L.
See ***Gomphidius viscidus,*** (L.) Fr.

Agaricus vitellinus, P.
See ***Bolbitius vitellinus,*** (P.) Fr.

Agaricus vitilis, Fr.
See ***Mycena vitilis,*** Fr.

Agaricus vitreus, Fr.
See ***Mycena vitreus,*** Fr.

Agaricus Vittadini, Farl. non Morett.
See ***Lepiota subremota,*** B. & C.

Agaricus volemus, Fr.
See ***Lactarius volemus,*** Fr.

Agaricus volvaceus, Bull.
See ***Volvaria volvacea,*** (Bull.) Fr.

Agaricus volvatus, Pk.
See ***Amanitopsis volvata,*** (Pk.) Sacc.

Agaricus vulgaris, P.
See ***Mycena vulgaris,*** (P.) Fr.

Agaricus Watsoni, Pk.
See ***Eccilia Watsoni,*** Pk.

Agaricus Woodianus, Pk.
See ***Clitopilus Woodianus,*** Pk.

Agaricus xanthophyllus, B. & C.
See ***Omphalia xanthophylla,*** B. & C.

Agaricus xanthopilus, Mont.
See ***Collybia xanthopila,*** Mont.

Agaricus xanthopus, Fr.
See ***Collybia xanthopus,*** Fr.

Agaricus xylogenus, Mont.
Mont. Syll. Crypt. 122. *d.* 1856.
Sacc. Cub. & Manc. Syll. **5**: 1010. *d.* 28 May 1887.
McIlvaine & Macadam, Am. Fung. 339. *d.* 1900.
Psalliota xylogena, Mont.
Lloyd, Myc. Notes 30. Nov. 1899.

Agaricus Yucatanensis, Ell. & Ev.
Ell. & Ev. in Ell. Publ. Field Columb. Mus. Bot. **1**: 285. *d. pl. 8.* Dec. 1896. [Publ. no. 15.] Cent. Amer.
Sacc. & Syd. Syll. **14**: 150. *d.* 20 Aug. 1899.

Agaricus Zippelii, Lev.
See ***Pleurotus Zippelii,*** (Lev.) Sacc. Syll.

Agaricus zonatus, Pk.
See ***Collybia zonata,*** Pk.

Aglaospora Betulæ, (Schum.) O. Kuntze.

NOTE. The *Sphæria melasperma* of Fries S.M. **2**: 389. *d.* 1823 and Scl. Suec. 157 is a synonym of this species but the *Sphæria melasperma* of Schweinitz Am. Bor. which we have examined is not the same as Fr. Scl. Suec. 157.

Kuntze, O., Rev. Gen. Pl. **3**^{2}: 441. 1898.
Sphæria lanciformis, Fr.
S. Syn. Am. Bor. 196 no. 1263. 1834.
Melanconis lanciformis, Tul.
Cke. Proc. Phil. Acad. **1877**: 127. *d.* 22 May 1877.
Pseudovalsa lanciformis, Ces. & De Not.
Berl. Icon. **1**: 47. *d. pl. 35, f. 2.* 1 Jan. 1891.*
Rostr. Meddelelser om Groenl. **3**: 619. 1891.
Ell. & Ev. Pyren. 540. *d.* May 1892.
Harvey, Bull. Torr. Bot. Club **23**: 56. 29 Feb. 1896.
Ricker, Univ. of Maine Studies 3: 36. 30 April 1902.
Melanconis elliptica, Pk.
Pk. Rept. N.Y. Mus. **25**: 102. Sept. 1873.
Frost in Cat. Pl. Amherst 94. 1875.
Cke. Proc. Phil. Acad. **1877**: 127. *d.* 22 May 1877.
Cobb, List Pl. Amherst 45. 1887.
Diatrype elliptica, Pk.
Pk. Rept. N.Y. Mus. **28**: 87. 1876.
Pseudovalsa lanciformis, (Fr.) De Not., var. ***elliptica,*** (Pk.) Sacc.
Sacc. Syll. **2**: 135. *d.* 13 June 1883.

Aglaospora bicornis, (Cke.) O. Kuntze.
Kuntze, O., Rev. Gen. Pl. **3**^{2}: 441. 1898.
Melanconis bicornis, Cke.
Cke. & B. Fungi 134. *f.* 72. 197. 1875.
Pk. Rept. N.Y. Mus. **28**: 72. *d.* 1876.
Cke. Proc. Phil. Acad. **1877**: 127. *d.* 22 May 1877.
Pk. in Day's Cat., Bull. Buf. Soc. **4**: 229 (165). 1883.
Pseudovalsa bicornis, Sacc.
Sacc. Syll. **2**: 139. *d.* 13 June 1883.
Berl. Icon. **1**: 49. *d. pl. 36, f. 4.* 1 Jan. 1891.
Ell. & Ev. Pyren. 539. *d.* May 1892.

Aglaospora Canadensis, (Ell. & Ev.) n. n.
Pseudovalsa Canadensis, Ell. & Ev.
Ell. & Ev. Jour. Myc. **9**: 224. *d.* 31 Dec. 1903.

Aglaospora caudata, (Ell. & Ev.) n. n.
Massariovalsa caudata, Ell. & Ev.
Ell. & Ev. Pyren. 408. *d.* May 1892.
Ell. & Ev. Proc. Phil. Acad. **1893**: 138. *d.* 28 Feb. 1893.
*Ell. & Ev. N. A. F. *2928.* Oct. 1893.
Lindau in Engler & Prantl, Pflanzenfam. 1^1: 445. Feb. 1897.
Pseudovalsa caudata, Sacc.
Sacc. Syll. **11**: 330. *d.* July 1895.

Aglaospora convergens, (Tode) O. Kuntze.
Kuntze, O., Rev. Gen. Pl. 3^2: 441. 1898.
Sphæria convergens, Tode.
Muhl. Cat. Pl. Am. Sept. 1 ed. 103. 1813. 2 ed. 106. 1818.
S. Syn. Car. 38 (12) no. 112. 1822.
S. Syn. Am. Bor. 203 no. 1390. 1834.
Lea, Cat. Pl. Cin. 75. 1849.
Pseudovalsa convergens, Sacc.
Sacc. Syll. **2**: 136. *d.* 13 June 1883.
Ell. & Ev. Pyren. 542. *d.* May 1892.
Kellerm. & Werner, Geol. Ohio 7^2: 358. Jan. 1895.

Aglaospora Fairmani, (Ell. & Ev.) O. Kuntze.
Kuntze, O., Rev. Gen. Pl. 3^2: 441. 1898.
Pseudovalsa Fairmani, Ell. & Ev.
Fairman, Proc. Rochester Acad. **1**: 49. *d. pl. 3, f. 1–3, 10, 11.* Aug. 1890.
Berl. Icon. **1**: 49. 1 Jan. 1891.
Sacc. Syll. **9**: 820. *d.* 15 Sept. 1891.
Ell. & Ev. Pyren. 540. *d.* May 1892.

Aglaospora hapalocystis, (B. & Br.) O. Kuntze.
Kuntze, O., Rev. Gen. Pl. 3^2: 441. 1898.
Valsa hapalocystis, B. & Br.
Pk. Rept. N.Y. Mus. **25**: 104. Sept. 1873.
Frost in Cat. Pl. Amherst 95. 1875.
Cke. Proc. Phil. Acad. **1877**: 123. *d.* 22 May 1877.
Cobb, List Pl. Amherst 46. 1887.
Pseudovalsa hapalocystis, Sacc.
Sacc. Syll. **2**: 138. *d.* 13 June 1883.
*Ell. & Ev. N. A. F. *2119.* 1889.
Berl. Icon. **1**: 48. *d. pl. 36, f. 1.* 1 Jan. 1891.
Ell. & Ev. Pyren. 538. *d.* May 1892.
Lindau in Engler & Prantl, Pflanzenfam. 1^1: 472. Feb. 1897.
*Rehm, Ascomyceten *1479.* 1903.
*Barthol. Ell. & Ev. Fung. Columb. *1843.* 28 Dec. 1903.

Aglaospora irregularis, (DC.) O. Kuntze.
Kuntze, O., Rev. Gen. Pl. 3^2: 441. 1898.
Sphæria profusa, Fr.
S. Syn. Am. Bor. 201 no. 1346. 1834.
Sphæria anomia, Fr.
S. Syn. Am. Bor. 199 no. 1316. 1834.
Sphæria amorphostoma, S.
S. Syn. Am. Bor. 201 no. 1334. *d.* 1834.
Sacc. Syll. **2**: 383. *d.* 13 June 1883.
Sphæria ocellata, S.
S. Syn. Am. Bor. 217 no. 1638. 1834.
B. Grev. **4**: 155 (193). June 1876.
Valsa profusa, Fr.
Pk. Rept. N. Y. Mus. **25**: 103. Sept. 1873.
Cke. Proc. Phil. Acad. **1877**: 123. 22 May 1877.

C. & E. Grev. **6**: 12. Sept. 1877.
*Ell. N. A. F. *172*. 1878.
Valsa amorphostoma, Cke.
Cke. Proc. Phil. Acad. **1877**: 124. 22 May 1877.
Stevenson, Proc. Phil. Acad. **1878**: 87. 9 April 1878.
Aglaospora profusa, De Not.
Rehm, Asc. Lojk. 41. *d.* 1882.
Sacc. Syll. **2**: 133. *d.* 13 June 1883.
Cke. Grev. **13**: 39. Dec. 1884.
Tubeuf-Smith, Diseases of Plants 229. 1897.
Schrenk, Rept. Mo. Bot. Gard. **12**: 21. 10 Feb. 1901.
Ricker, Univ. of Maine Studies 3: 32. 30 April 1902.
Valsa anomia, Strauss.
B. Grev. **4**: 99 (169). *d.* March 1876.
Cke. Proc. Phil. Acad. **1877**: 116. 17 April 1877.
Sacc. Syll. **1**: 126. *d.* 13 June 1882.
Cke. Grev. **14**: 51. Dec. 1885.
Ell. & Ev. Pyren. 474. *d.* May 1892.
Sphæria Sartwellii, B. & C. nom. nud.
Sprague, Proc. Boston Soc. **6**: 320. 1859.
Massaria macrospora, B. & C. nom. nud.
Pk. Rept. N.Y. Mus. **25**: 103. Sept. 1873.
Massaria seiridia, B. & C.
Curtis, M. A., Bot. N. Car. 150. 1867.
B. Grev. **4**: 155 (193) no. 976. *d.* June 1876.
Valsa Sartwellii, B. & C. nom. nud.
Cke. Proc. Phil. Acad. **1877**: 123. 22 May 1877.
Pseudovalsa profusa, Cke.
Cke. Grev. **14**: 55. Dec. 1885.
Ell. in Cat. Pl. N. J. 534. 1889.
Berl. Icon. **1**: 47. *d. pl. 34, f. 6.* 1 Jan. 1891.
Ell. & Ev. Pyren. 538. *d.* May 1892.
Starb. Bihang till K. Sv. Vet.-Akad. Handl. **19**^{3}: no. 2: 36. 1894.
*Ell. & Ev. Fung. Columb. *523*. 1894.
Harvey, Bull. Torr. Bot. Club **23**: 55. 29 Feb. 1896.
*Barthol., Ell. & Ev. Fung. Columb. *1566*. Dec. 1901.
Pseudovalsa irregularis, Schrt.
Lindau in Engler & Prantl, Pflanzenfam. **1**^{1}: 472. *d. f. 280 K.* Feb. 1897.

Aglaospora minima, (Ell. & Ev.) n. n.
Pseudovalsa minima, Ell. & Ev.
Ell. & Ev. Jour. Myc. **9**: 224. *d.* 31 Dec. 1903.

Aglaospora occulta, (Ell.) n. n.
Pseudovalsa occulta, Ell.
Ell. Proc. Phil. Acad. **1895**: 27 (8). *d.* April 1895.
Sacc. Hedw. **35**: Rep. 7: xxx. *d.* 25 Feb. 1896.
Sacc. & Syd. Syll. **14**: 578. *d.* 20 Aug. 1899.

Aglaospora profusa, De Not.
See ***Aglaospora irregularis,*** (DC.) O. Kuntze.

Aglaospora ribesia, (Sacc. & Scalia) n. n.
Pseudovalsa ribesia, Sacc. & Scalia.
Sacc. Pk. & Trel., Harriman Alaska Exp. **5**: 29. *d. pl. 5, f. 14.* 5 April 1904.

Aglaospora sambucina, (Pk.) O. Kuntze.
Kuntze, O., Rev. Gen. Pl. **3**^{2}: 441. 1898.
Valsa sambucina, Pk.
Pk. Rept. N. Y. Mus. **28**: 75. *d.* 1876.

Pseudovalsa sambucina, Sacc.
Sacc. Syll. **2**: 137. *d.* 13 June 1883.
Cke. Grev. **14**: 56. Dec. 1885.
Berl. Icon. **1**: 49. 1 Jan. 1891.
Ell. & Ev. Pyren. 539. *d.* May 1892.

Aglaospora sigmoidea, (C. & E.) O. Kuntze.
Kuntze, O., Rev. Gen. Pl. **3**^{2}: 441. 1898.
Melanconis sigmoidea, C. & E.
C. & E. Grev. **6**: 92. *d. pl. 100, f. 26.* March 1878.
*Ell. N. A. F. *1566.* 1886.
Pseudovalsa sigmoidea, Sacc.
Sacc. Syll. **2**: 136. *d.* 13 June 1883.
Cke. Grev. **14**: 56. Dec. 1885.
Ell. in Cat. Pl. N. J. 534. 1889.
Berl. Icon. **1**: 47. *d. pl. 35, f. 1.* 1 Jan. 1891.
Ell. & Ev. Pyren. 541. *d.* May 1892.
*Ell. & Ev. N. A. F. *2758.* May 1892.
Millsp. & Nutt. Publ. Field Columb. Mus. Bot. **1**: 116, 142. *d.* Jan. 1896.
*Ell. & Ev. Fung. Columb. *949.* April 1896.
*Shear, Ell. & Ev. Fung. Columb. *1423.* May 1901.

Aglaospora Smithii, (Ell. & Ev.) n. n.
Pseudovalsa Smithii, Ell. & Ev. [Cent. Amer.
Ell. & Ev. in Smith, C. L., Bull. Univ. Iowa **2**: 404. *d.* Nov. 1893.
Sacc. Syll. **11**: 331. *d.* July 1895.
*Smith, C. L., Cent. Amer. Fungi *16.* 1896.

Aglaospora stylospora, (Ell. & Ev.) O. Kuntze.
Kuntze, O., Rev. Gen. Pl. **3**^{2}: 441. 1898.
Pseudovalsa stylospora, Ell. & Ev.
Ell. & Ev. Proc. Phil. Acad. **1890**: 223. *d.* 1890.
Berl. Icon. **1**: 48. *d. pl. 35, f. 5.* 1 Jan. 1891.
Sacc. Syll. **9**: 821. *d.* 15 Sept. 1891.
Ell. & Ev. Pyren. 539. *d. pl. 35, f. 9–11.* May 1892.

Aglaospora subrufa, (Ell. & Ev.) n. n.
Pseudovalsa subrufa, Ell. & Ev.
Ell. & Ev. Erythea **1**: 146. *d.* 1 July 1893.
Sacc. Syll. **11**: 330. *d.* July 1895.

Aglaospora taleola, Tul.
See ***Diaporthe taleola,*** (Fr.) Sacc.

Aglaospora Titan, O. Kuntze.
See ***Titania Berkeleyi,*** Berl.

Aglaospora tubulosa, (B. & C.) O. Kuntze.

NOTE. The name of this fungus was originally *Valsa tubulosa,* B. & C. as in Curtis, M. A., Bot. N. Car. 142. 1867 and in the Curtis herbarium. In Grevillea, 1876 it is *Valsa tribulosa,* B. & C. but the original spelling has been followed by subsequent authors.

Kuntze, O., Rev. Gen. Pl. **3**^{2}: 441. 1898.
Valsa tubulosa, B. & C.
Curtis, M. A., Bot. N. Car. 142. 1867.
Cke. Proc. Phil. Acad. **1877**: 123. *d.* 22 May 1877.
Valsa tribulosa, B. & C.
B. Grev. **4**: 102 (172). no. 877. *d.* March 1876.
Pseudovalsa tubulosa, Sacc.
Sacc. Syll. **2**: 137. *d.* 13 June 1883.
Cke. Grev. **14**: 48, 56. Dec. 1885.
Berl. & Vogl. in Sacc. Syll. Add. **1-4**: 151. 31 Dec. 1886.

Berl. Icon. **1**: 47. *d. pl. 34, f. 5.* 1 Jan. 1891.
Ell. & Ev. Pyren. 542. *d.* May 1892.
Calospora tribulosa, Sacc.
Sacc. Syll. **2**: 232. *d.* 13 June 1883.

Aglaospora ulmicola, (Ell. & Ev.) n. n.
Pseudovalsa ulmicola, Ell. & Ev.
Ell. & Ev. Proc. Phil. Acad. **1893**: 450. *d.* 1893.
Sacc. Syll. **11**: 330. *d.* July 1895.

Aglaospora viticola, (Ell. & Ev.) n. n.
Pseudovalsa viticola, Ell. & Ev.
Ell. & Ev. Proc. Phil. Acad. **1894**: 343. *d.* 30 Nov. 1894.
Sacc. Syll. **11**: 330. *d.* July 1895.
Smyth, Tr. Kans. Acad. **15**: 67. March 1898.
Ell. & Ev. Bull. Torr. Bot. Club **27**: 63. *d.* 17 Feb. 1900.
Sacc. & Syd. Syll. **16**: 527. 1 Feb. 1902.
Lophiostoma pustulatum, Ell. & Ev.
Ell. & Ev. Bull. Torr. Bot. Club **25**: 503. *d.* 10 Sept. 1898.
Smyth, Tr. Kans. Acad. **16**: 165. June 1899.

Aglaospora Xanthoxyli, O. Kuntze.
See ***Fenestella Xanthoxyli***, (Pk.) Sacc.

Agyriella, Ell. & Ev.
See ***Agyriopsis***, Sacc. & Syd.

Agyriella Betheli, Ell. & Ev.
See ***Agyriopsis Betheli***, (Ell. & Ev.) Sacc. & Syd.

Agyriopsis, Sacc. & Syd.
Sacc. & Syd. Syll. **14**: 805. *d.* 20 Aug. 1899.
Lindau in Engler & Prantl, Pflanzenfam. **1**^{1**}: 533. *d.* Feb. 1900.
Agyriella, Ell. & Ev.
Ell. & Ev. Bull. Torr. Bot. Club. **24**: 470. *d.* 30 Oct. 1897.
Lindau & Syd. Hedw. **37**: Beibl. 7: li. *d.* 9 April 1898.

Agyriopsis Betheli, (Ell. & Ev.) Sacc. & Syd.
Sacc. & Syd. Syll. **14**: 805. *d.* 20 Aug. 1899.
Lindau in Engler & Prantl, Pflanzenfam. **1**^{1**}: 533. Feb. 1900.
Agyriella Betheli, Ell. & Ev.
Ell. & Ev. Bull. Torr. Bot. Club **24**: 470. *d.* 30 Oct. 1897.
Lindau & Syd. Hedw. **37**: Beibl. 7: li. 9 April 1898.

Agyrium, Fr.

NOTE. The genus *Agyrium* was by some of the earlier writers regarded as belonging to Lichens while others regarded it as belonging to Fungi. For notes as to its relation to Lichens see Tuck. Gen. Lich. 225. 1872.

Agyrium atrovirens, Fr.

NOTE. The reference in Schweinitz below is to the *Agyrium atrovirens* of Fr. S.M. **2**: 232. 1822 which was later considered by Fr. El. **2**: 25. 1830 to be an abortive form of *Stictis Pupula*, Fr. Other references to *Agyrium atrovirens* are to be found under *Cryptodiscus atrovirens*, (Fr.) Cda. and *Propolidium atrovirens*, (Fr.) Rehm.

S. Syn. Am. Bor. 187 no. 1141. 1834.

Agyrium brunneolum, B. & C.
B. Grev. **4**: 6 (144) no. 774. *d.* Sept. 1875.
Sacc. Syll. **8**: 635. *d.* 20 Dec. 1889.
Underw. & Earle, Bull. Ala. Exp. Sta. 80: 200. *d.* 28 June 1897.
Earle in Mohr, Contr. U. S. Nat. Herb. **6**: 159. 31 July 1901.

Agyrium cæsium, Fr.
S. Syn. Am. Bor. 187 no. 1139. 1834.

Agyrium carneolum, Tuck.
Tuck. Syn. N. Am. Lichens **2**: 111. *d.* 1888.

Agyrium herbarum, Fr.
S. Syn. Am. Bor. 187 no. 1144. 1834.
C. & E. Grev. **6**: 9. Sept. 1877.
*Ell. N. A. F. *451.* 1880.
*Sacc. Syll. **8**: 635. *d.* 20 Dec. 1889.
Ell. in Cat. Pl. N. J. 556. 1889.
?Tremella Stictis, A. & S. non P.
S. Syn. Car. 116 (90) no. 1146. 1822.

Agyrium lacteum, Fr.

NOTE. The only information we have of this species is a description contained in a short account in Fries, Summa 480. 1846 where it occurs in a foot note under *Diaphanium*. This is repeated in Sacc. Syll. **4**: 672. 10 April 1886. The specimen labeled *Agyrium lacteum* from Herb. Schweinitz which we have examined is on the stem of some unknown herbaceous plant and is *Cylindrocolla Urticæ*, (P.) Bon.

S. Syn. Am. Bor. 187 no. 1143. *d.* 1834.

Agyrium nigricans, Fr.
See ***Epidochium nigricans,*** Fr.

Agyrium rufum, (P.) Fr.

NOTE. Under Tuckerman and Willey are given the principal references to this species in North American lichenological literature.

Grev. Scot. Crypt. Fl. **4**: *pl. 232.* 1826.
S. Syn. Am. Bor. 187 no. 1140. 1834.
M. A. Curtis, Bot. N. Car. 135. 1867.
Cke. Handbook 733. *d. f. 340.* 1871.
B. Grev. **4**: 6 (144). Sept. 1875.
C. & E. Grev. **4**: 180. June 1876.
Cke. Grev. **7**: 48. Dec. 1878.
*Rav. Fung. Am. *314.* 1879.
*Ell. N. A. F. *450.* 1881.
Rehm, Asc. Lojk. 24. *d.* 1882.
Willey, Intr. to study of Lichens 54. 1887.
Tuck. Syn. N. Am. Lichens **2**: 111. *d.* 1888.
Sacc. Syll. **8**: 634. *d.* 20 Dec. 1889.
Ell. in Cat. Pl. N. J. 556. 1889.
Willey, Enum. Lichens New Bedford 28. 1892.
Lindau in Engler & Prantl, Pflanzenfam. **1**[1]: 219. *f. 170 A, B.* Dec. 1894.
Underw. & Earle, Bull. Ala. Exp. Sta. 80: 200. 28 June 1897.
Earle in Mohr, Contr. U. S. Nat. Herb. **6**: 159. 31 July 1901.
Ricker, Univ. of Maine Studies 3: 47. 30 April 1902.

Agyrium sexdecimsporum, Fckl.

NOTE. This species is referred by Rehm in Rabh. Krypt.-Fl. **1**[3]: 307. 1890 to *Biatorella geophana*, (Nyl.) Rehm, *q.v.* It was formerly considered to be a lichen and it appears in the lichenological literature of North America as *Biatora* and *Biatorella*. See Tuck. Syn. N. Am. Lichens **2**: 50. *d.* 1888. Willey, Intr. to study of Lichens 48. 1887 and Enum. Lichens New Bedford 25. 1892.

C. & E. Grev. **8**: 13. Sept. 1879.
Sacc. Syll. **8**: 636 *d.* 20 Dec. 1889.
Ell. in Cat. Pl. N. J. 556. 1889.

Agyrium Tuckermanii, B. & Rav.
B. Grev. **4**: 6 (144) no. 773. *d.* Sept. 1875.
Sacc. Syll. **8**: 635. *d.* 20 Dec. 1889.

Ailographum.
See ***Aulographum.***

Albugo, (P.) S. F. Gray.
Swingle, Jour. Myc. **7**: 109. *d.* April 1892.
Magn. Hedw. **32**: 66. April 1893.

Albugo Amaranti, O. Kuntze.
See ***Albugo Bliti,*** (Biv.) O. Kuntze.

Albugo Bliti, (Biv.) O. Kuntze.
Kuntze, O., Rev. Gen. Pl. **2**: 658 1891.
Schrt. in Engler & Prantl, Pflanzenfam. **1**[1]: 112. *d.* Aug. 1893.
Clements, Fl. Nebr. 1: 57. *d.* 15 Aug. 1894.
McClatchie, Proc. S. Cal. Acad. **1**: 351. 5 June 1897.
Stevens, F. L., Bot. Gaz. **28**: 149. *pl. 11–15.* 25 Sept. 1899 and **28**: 233. 21 Nov. 1899 and Rev. Myc. **22**: 117. *pl. 206, f. 1–8. pl. 207, f. 14–22.* Oct. 1900.
Davis, B. M., Bot. Gaz. **29**: 297. 25 May 1900.
Stevens, Bot. Gaz. **32**: 254. *pl. 4, f. 47, 51, 52.* 21 Oct. 1901.
Swingle, Bull. U.S. Agr. Pl. Industry 37: 35. 27 June 1903.
Cæoma Amaranti, S.
S. Syn. Am. Bor. 292 no. 2853. *d.* 1834.
Uredo Amaranti, B.
B. Jour. Roy. Hort. Soc. **3**: 270 (8). *f. 4.* Aug. 1848.
Cystopus Bliti, Lev.
Farl. Bull. Bussey Inst. **1**: 429. *d.* 432. March 1876.
Burrill, Bull. Ill. Lab. **1**[1]: 57. Dec. 1876.
*Thm. Myc. Univ. *619.* 1877.
Pk. Rept. N. Y. Mus. **29**: 76. 1878.
*Ell. N. A. F. *206.* 1879.
Farl. Bot. Gaz. **8**: 335. *d.* Nov. 1883.
Pk. in Day's Cat., Bull. Buf. Soc. **4**: 213 (149). 1883.
Farl. Bot. Gaz **9**: 40. March 1884.
Trel. Tr. Wis. Acad. **6**: 108 (4). Nov. 1884.
Bessey, Bull. Iowa Agr. Coll. **1884**: 140. Jan. 1885.
Kellerm. Bull. Wash. Lab. **1**: 78. Jan. 1885 and Tr. Kans. Acad. **9**: 83. 1885.
Wint. & Demet. Hedw. **24**: 201 (25). Oct. 1885.
Arth. & Holw. Bull. Minn. Surv. 3: 36. 1 Oct. 1887.
Brendel, Fl. Peoriana 2 ed. 69. 1887.
Kellerm. & Carl. Tr. Kans. Acad. **10**: 94. 1887.
Berl. & De Toni in Sacc. Syll. **7**: 236. *d.* 15 March 1888.
Halsted, Bot. Gaz. **13**: 57. March 1888.
Halsted, Bull. Iowa Agr. Coll. **1888**: 100. April 1888.
*Roum. Fung. Gall. *4551.* 1888.
Roum. Rev. Myc. **10**: 145. 1 July 1888.
Tracy & Gall. Jour. Myc. **4**: 36. May 1888.
Macbr. & Hitchcock, Bull. Univ. Iowa **1**: 51. Nov. 1888.
Halsted, Jour. Myc. **5**: 10. March 1889.
Seymour, Proc. Boston Soc. **24**: 184. 8 Nov. 1889.
Jennings, Bull. Tex. Exp. Sta. 9: 25. May 1890.
Webber, Rept. Nebr. Agr. **1889**: 190 (50). 1890.
Pammel, Bull. Iowa Exp. Sta. 15: 236 (3). *pl. 6, f. 1–4.* Nov. 1891. and Am. Mo. Micr. Jour. **14**: 191. *pl. 1, f. 1–4.* July 1893.
Williams, Bull. S. Dak. Exp. Sta. 29: 46. Dec. 1891.
Williams, Bull. Torr. Bot. Club **19**: 83. 5 March 1892.
Pammel, Jour. Myc. **7**: 102. April 1892.
*Seymour & Earle, E. F. *352, 354.* 1 May 1893.
*Ell. & Ev. Fung. Columb. *46.* 1893.

Halsted, Rept. N. J. Exp. Sta. **1892**: 348. 1893.
*Shear, N. Y. Fungi *198*. 1893.
Halsted, Bull. N. J. Exp. Sta. 107: 11. 10 Jan. 1895.
Halsted, Rept. N. J. Exp. Sta. **1894**: 345. 1895.
Millsp. & Nutt. Publ. Field Columb. Mus. Bot. **1**: 83. Jan. 1896.
Pammel & Carver, Proc. Iowa Acad. **3**: 144. 1896.
Atk. Bull. Cornell Univ. **3**: 14. 25 June 1897.
Tubeuf-Smith, Diseases of Plants 127. 1897.
Orton, Rept. Vt. Exp. Sta. **11**: 202. Sept. 1898 and Contr. Bot. Vt. 2: 4. Sept. 1898.
Halsted, Bull. Torr. Bot. Club **25**: 575. 7 Nov. 1898.
Berl. Icon. Phyc. 8. *d. pl. 4*. 1898.
Hume, Proc. Davenport Acad. **7**: 253. 12 May 1899.
Selby, Bull. Ohio Exp. Sta. 121: 18. Sept. 1900.
Berl. Riv. Patol. Veg. **9**: 29. *d. f. 5*. 20 Feb. 1901.
Selby & Ames, Bull. Ohio Exp. Sta. 126: 173. March 1901.
Sturgis, Rept. Conn. Exp. Sta. **24**: 261. 1901.
*Griffiths, West Am. Fung. *33*. 22 March 1902.
Cystopus candidus, Pk. p.p. non Lev.
Pk. Rept. N. Y. Mus. **22**: 93. 1869.
Pk. Rept. N. Y. Mus. **24**: 103. 1872.
Cystopus Amaranti, B.
B. Grev. **3**: 58 (100) no. 571. *d.* Dec. 1874.
Pk. Rept. N. Y. Mus. **28**: 61. 1876.
Berl. & De Toni in Sacc. Syll. **7**: 236. *d.* 15 March 1888.
Swingle, Tr. Kans. Acad. **11**: 69. 1 Nov. 1889.
Swingle, Tr. Kans. Acad. **12**: 131. 1890.
Halsted, Rept. N. J. Exp. Sta. **1892**: 278. 1893.
Cystopus Cyathulæ, Wint. in litt. ad Roum.
*Roum. Fung. Gall. *4863*. 1888.
Roum. Rev. Myc. **11**: 66. 1 April 1889.
Albugo Amaranti, O. Kuntze.
Kuntze, O., Rev. Gen. Pl. **2**: 658. 1891.
Swingle, Jour. Myc. **7**: 115. April 1892.
Davis, J. J., Tr. Wis. Acad. **9**: 155. 21 Aug. 1893.
Underw. Proc. Ind. Acad. **1893**: 31. Aug. 1894.
Kellerm. & Werner, Geol. Ohio 7^2: 348. Jan. 1895.
Tracy & Earle, Bull. Miss. Exp. Sta. 34: 94. May 1895.
Underw. & Earle, Bull. Ala. Exp. Sta. 80: 136. 28 June 1897.
Stevens, Rept. Ohio Acad. **6**: 38. 1898.
Long, Bull. Torr. Bot. Club **27**: 586. 14 Nov. 1900.
Earle in Mohr, Contr. U. S. Nat. Herb. **6**: 151. 31 July 1901.
Patterson, Bull. U. S. Agr. Pl. Industry 8: 17. 3 Feb. 1902.
*Barthol., Ell. & Ev. Fung. Columb. *1709*. Feb. 1903.

Albugo Bliti, Vestergren.
See ***Albugo Platensis,*** (Speg.) Swingle.

Albugo candidus, (P.) O. Kuntze.
Kuntze, O., Rev. Gen. Pl. **2**: 568. 1891.
Swingle, Jour. Myc. **7**: 110. April 1892.
Davis, J. J., Tr. Wis. Acad. **9**: 154. 21 Aug. 1893.
Schrt. in Engler & Prantl, Pflanzenfam. 1^1: 110. *d. f. 94, 95*. Aug. 1893.
Underw. Proc. Ind. Acad. **1893**: 31, 32. Aug. 1894.
Clements, Fl. Nebr. 1: 57. *d.* 1894.
Kellerm. & Werner, Geol. Ohio 7^2: 348. Jan. 1895.
Tracy & Earle, Bull. Miss. Exp. Sta. 34: 94. May 1895.
Underw. Proc. Ind. Acad. **1894**: 153. Oct. 1895. [1895.
Ellis & James in Holzinger, Contr. U. S. Nat. Herb. **3**: 276. 23 Nov.

Pammel, Proc. Iowa Acad. **2**: 203. 1895.
Pound, Clements and others, Bot. Surv. Nebr. 4: 34. 20 Jan. 1896.
Stevens, Rept. Ohio Acad. **4**: 20. 1896.
McClatchie, Proc. S. Cal. Acad. **1**: 351. 5 June 1897.
Underw. & Earle, Bull. Ala. Exp. Sta. 80: 136. 28 June 1897.
Stevens, Rept. Ohio Acad. **5**: 66. 1897.
Stevens, Rept. Ohio Acad. **6**: 38. 1898.
Underw. Moulds 32. *pl. 3, f. 6*. 1899.
Davis, B. M., Bot. Gaz. **29**: 297. *pl. 22*. 25 May 1900.
Long, Bull. Torr. Bot. Club **27**: 586. 14 Nov. 1900.
Nelson, Rept. Wyo. Exp. Sta. **10**: (20). 1900.
Tracy & Earle in Greene, Pl. Baker **1**: 16. 22 Feb. 1901.
Stevens, Ber. Deutsch. Bot. Ges. **19**: 174. 24 April 1901.
Earle in Mohr. Contr. U. S. Nat. Herb. **6**: 152. 31 July 1901.
Stevens, Bot. Gaz. **32**: 91, 98. *pl. 2*. 20 Aug. 1901 and **32**: 254. 21 Oct. 1901.
Patterson, Bull. U. S. Agr. Pl. Industry 8: 17. 3 Feb. 1902.
*Griffiths, West. Am. Fung. *335*. 21 May 1902.
Kellerm. Jour. Myc. **8**: 57. *d*. 30 June 1902.
*Kellerm. Ohio Fungi *63. d*. July 1902.
*Barthol. Ell. & Ev. Fung. Columb. *1710*. Feb. 1903.
*Kellerm. Ohio Fungi *122*. 1903.
Kellerm. Jour. Myc. **9**: 111. 29 May 1903.
*Barthol., Ell. & Ev. Fung. Columb. *1805, 1806*. 28 Dec. 1903.
Clint. Rept. Conn. Exp. Sta. **27**: 353. May 1904.
Kellerm. Jour. Myc. **10**: 115. 31 May 1904.
*Barthol., Ell. & Ev. Fung. Columb. *2001*. 20 March 1905.

Aecidium candidum, P.
P. in Gmel. Syst. Nat. **2**: 1473. *d*. 1791.*

Uredo candida, P.
S. Syn. Car. 71 (45) no. 481. 1822.
Grev. Scot. Crypt. Fl. **5**: *pl. 251*. 1827.
Lea, Cat. Pl. Cin. 71. 1849.
Watt, Can. Nat. & Geol. II. **2**: 392. Oct. 1865.

Uredo Cheiranthi, P.
S. Syn. Car. 71 (45) no. 482. 1822.

Cæoma candidum, S. Am. Bor. p.p.
S. Syn. Am. Bor. 292. no. 2852. 1834.

Cystopus candidus, Lev.
*Rav. Fung. Car. **4**: *93*. 1855.
Sprague, Proc. Boston Soc. **6**: 319. 1859.
Watt, Can. Nat. & Geol. II. **2**: 391. Oct. 1865.
Curtis, M. A., Bot. N. Car. 124. 1867.
Russell, Am. Nat. **2**: 633. *f. 4*. Feb. 1869.
Pk. Rept. N. Y. Mus. **24**: 103. 1872.
B. Grev. **3**: 58 (100). Dec. 1874.
Farl. Bull. Bussey Inst. **1**: 329. *f. 5*. 1875.
Frost in Cat. Pl. Amherst 84. 1875.
Farl. Bull. Bussey Inst. **1**: 429. *d*. 432. March 1876.
Burrill, Bull. Ill. Lab. **1**: 57. *pl. 1, f. 1–4*. Dec. 1876.
Pk. Rept. N. Y. Mus. **29**: 76. 1878.
James, Jour. Cin. Soc. **2**: 67 (26). April 1879.
*Ell. N. A. F. *204*. 1879.
Hark & Moore, Cat. Pac. Fung. 26. Feb. 1880.
Johnson, Bull. Minn. Acad. **1**: 365. 1880.
Farl. Bot. Gaz. **8**: 334. *d*. Nov. 1883.
Bundy, Geol. Wis. 1873–79. **1**: 400. 1883.
Pk. in Day's Cat., Bull. Buf. Soc. **4**: 213 (149). 1883.

Farl. Bot. Gaz. **9**: 40. March 1884.
Trel. Tr. Wis. Acad. **6**: 108 (4). Nov. 1884.
Barnes in Bot. Gaz. **9**: 194. Dec. 1884.
Bessey, Bull. Iowa Agr. Coll. **1884**: 140. Jan. 1885.
Kellerm. Bull. Wash. Lab. **1**: 78. Jan. 1885 and Tr. Kans. Acad. **9**: 83. 1885.
Hark. Bull. Cal. Acad. **1**: 163. 7 March 1885.
Wint. & Demet. Hedw. **24**: 201 (25). Oct. 1885.
Arth. & Holw. Bull. Minn. Surv. 3: 36. 1 Oct. 1887.
Brendel, Fl. Peoriana 2 ed. 69. 1887.
Halsted, Bull. Iowa Agr. Coll. **1886**: 54. 1887.
Kellerm. & Carl. Tr. Kans. Acad. **10**: 94. 1887.
Langlois, Cat. Pl. La. 29. 1887.
Scribner, Rept. U. S. Agr. **1886**: 134. 1887.
Berl. & De Toni in Sacc. Syll. **7**: 234. *d.* 15 March 1888.
Halsted, Bot. Gaz. **13**: 56. March 1888.
Halsted, Bull. Iowa Agr. Coll. **1888**: 99. April 1888.
Tracy & Gall. Jour. Myc. **4**: 36. May 1888.
Macbr. & Hitchcock, Bull. Univ. Iowa **1**: 51. Nov. 1888.
Halsted, Jour. Myc. **5**: 9. March 1889.
Kelsey, Jour. Myc. **5**: 81. June 1889.
Swingle, Tr. Kans. Acad. **11**: 66. 1 Nov. 1889.
Ell. in Cat. Pl. N. J. 594. 1889.
*Underw. & Cook, Illustr. Fungi *91*. 1889.
Humphrey, Rept. Mass. Exp. Sta. **8**: 222. Jan. 1890.
*Ell. & Ev. N. A. F. *2420*. 1890.
Webber, Rept. Nebr. Agr. **1889**: 190 (50). 1890.
Swingle, Tr. Kans. Acad. **12**: 130. 30 March 1891.
Halsted, Rept. N. J. Exp. Sta. **1890**: 350. June 1891.
Halsted, Bot. Gaz. **16**: 340. 15 Dec. 1891.
Williams, Bull. S. Dak. Exp. Sta. 29: 46. Dec. 1891.
Williams, Bull. Torr. Bot. Club **19**: 83. 5 March 1892.
Atk. Bull. Ala. Exp. Sta. 41: 44. Dec. 1892.
McCarthy, Bull. N. Car. Exp. Sta. 84: 15. 21 April 1892.
Millsp. Bull. W. Va. Exp. Sta. 24: 510. June 1892.
Halsted, Rept. N. J. Exp. Sta. **1891**: 249. 1892.
*Seymour & Earle, E. F. *256*, *257*, *259*. 1 May 1893.
*Ell. & Ev. Fung. Columb. *133*. 1893.
Halsted, Rept. N. J. Exp. Sta. **1892**: 277, 346. 1893.
*Shear, N. Y. Fungi *199*. 1893.
Halsted, Rept. N. J. Exp. Sta. **1893**: 326. 1894.
*Seymour & Earle, E. F. *401*. 1 July 1895.
Halsted, Rept. N. J. Exp. Sta. **1894**: 356. 1895.
Millsp. & Nutt. Publ. Field Columb. Mus. Bot. **1**: 82. Jan. 1896.
Wager, Ann. Bot. **10**: 297. *pl. 15, 16*. Sept. 1896.
Pammel & Carver, Proc. Iowa Acad. **3**: 144. 1896.
Atk. Bull. Cornell Univ. **3**: 14. 25 June 1897.
Davis, J. J., Tr. Wis. Acad. **11**: 165. Aug. 1897.
*Seymour & Earle, E. F. *454*. 15 Oct. 1897.
Beal, Proc. Soc. Prom. Agr. Sci. **18**: 37. 1897.
Ell. in Hitchcock, Rept. Mo. Bot. Gard. **9**: 120. 20 April 1898.
Orton, Rept. Vt. Exp. Sta. **11**: 202. Sept. 1898 and Contr. Bot. Vt. 2: 4. Sept. 1898.
Berl. Icon. Phyc. 6. *d. pl. 1. pl. 2, f. 1*. 1898.
Halsted, Bull. Torr. Bot. Club **26**: 18. 16 Jan. 1899.
Halsted, Bull. Torr. Bot. Club **26**: 382. 18 July 1899.
Orton, Rept. Vt. Exp. Sta. **12**: 165. Dec. 1899 and Contr. Bot. Vt. 7: 165. Dec. 1899.

Halsted, Rept. N. J. Exp. Sta. **1898**: 368. 1899.
Herbst, Fungal Fl. Lehigh Valley 205. *d.* 1899.
Selby, Bull. Ohio Exp. Sta. 121: 21, 37. Sept. 1900.
Hume, Rept. Fla. Exp. Sta. **1900**: 39. 1900.
Berl. Riv. Patol. Veg. **9**: 9. *d. f. 1.* 20 Feb. 1901.
Halsted, Rept. N. J. Exp. Sta. **1900**: 462. *pl. 11.* 1901
Sturgis, Rept. Conn. Exp. Sta. **24**: 262, 285, 291. 1901.
*Griffiths, West Am. Fung. *46.* 22 March 1902.
Ricker, Univ. of Maine Studies 3: 18. 30 April 1902.

Albugo Convolvulacearum, Henn.

See ***Albugo Ipomœæ-panduranæ,*** (S.) Swingle.

Albugo Ipomœæ-panduranæ, (S.) Swingle.

NOTE. For notes on the structure of *Aecidium Ipomœæ-panduranæ,* S. which some writers even at the present date quote incorrectly as a true *Aecidium,* see Farl. Bot. Gaz. **14**: 187–189. 16 Aug. 1889.

Whether *Cystopus Convolvulacearum,* Speg. is specifically distinct from this species as supposed by some mycologists seems to us doubtful and at least the no. 1809 N. A. F. and 501 Rav. Fung. Am. cited by Berlese in Riv. Patol. Veg. **9**: 25 under *C. Convolvulacearum* seem to us to be *Albugo Ipomœæ-panduranæ* as is probably also *Albugo Convolvulacearum* of Hennings given below.

Swingle, Jour. Myc. **7**: 112. April 1892.
Schrt. in Engler & Prantl, Pflanzenfam. **1**[1]: 112. *d.* Aug. 1893.
Underw. Proc. Ind. Acad. **1893**: 32. Aug. 1894.
Clements, Fl. Nebr. 1: 58. *d.* 1894.
Tracy & Earle, Bull. Miss. Exp. Sta. 34: 94. May 1895.
Underw. & Earle, Bull. Ala. Exp. Sta. 80: 136. 28 June 1897.
Underw. Proc. Ind. Acad. **1896**: 172. 1897.
Long, Bull. Torr. Bot. Club **27**: 586. 14 Nov. 1900.
Earle in Mohr, Contr. U. S. Nat. Herb. **6**: 152. 31 July 1901.
Patterson, Bull. U. S. Agr. Pl. Industry 8: 17. 3 Feb. 1902.
Stevens, Bot. Gaz. **38**: 300. *f. 1, 2.* 20 Oct. 1904.
*Barthol, Ell. & Ev. Fung. Columb. *2002, 2003, 2004.* 20 March 1905.
Aecidium Ipomœæ-panduranæ, S.
S. Syn. Car. 69 (43) no. 454. *d.* 1822.
Uredo Convolvuli, Spreng.
Spreng. in L. Syst. Veg. 16 ed. **4**[1]: 572. *d.* 1827.
Hark. & Moore, Cat. Pac. Fung. 26. Feb. 1880.
Cæoma convolvulatum, Lk.
Lk., L. Sp. Pl. ed. Willd. **6**[2]: 49. *d.* 1825.
S. Syn. Am. Bor. 292 no. 2866. 1834.
Aecidium rutilum, Bon.
Bon. Abh. Nat. Ges. Halle **5**: 212 (46). *d.* 1860.
?Aecidium Convolvuli, M. A. Curtis.
Curtis, M. A., Bot. N. Car. 123. 1867.
Cystopus cubicus, Auct. Amer. p.p.
B. & C. Jour. Linn. Soc. **10**: 357. 1869.
B. Grev. **3**: 58 (100). Dec. 1874.
Farl. Bull. Bussey Inst. **1**: 429. *d.* March 1876.
*Thm. Myc. Univ. *815.* 1877.
Cke. Grev. **7**: 46. Dec. 1878.
*Rav. Fung. Am. *501.* 1881.
Kellerm. Bull. Wash. Lab. **1**: 78. Jan. 1885 and Tr. Kans. Acad. **9**: 83. 1885.
Ell. in Cat. Pl. N. J. 594. 1889.
Aecidium Ipomœæ, B.
B. Grev. **3**: 60 (102). Dec. 1874.

Cystopus convolvulacearum, Zalewski.
Zalewski, Bot. Centralbl. **15**: 223. 1883.
*Ell. &Ev. N. A. F. *1809*. 1887.
Kellerm. & Carl. Tr. Kans. Acad. **10**: 94. 1887.
Langlois, Cat. Pl. La. 29. 1887.
Farl. Bot. Gaz. **14**: 187, 188. Aug. 1889.
Tubeuf-Smith, Diseases of Plants 127. 1897.
Ell. in Hitchcock, Rept. Mo. Bot. Gard. **9**: 120. 20 April 1898.
Berl. Riv. Patol. Veg. **9**: 25. *d. f. 4*. 20 Feb. 1901.

Cystopus Tragopogonis, Auct. Amer. p.p.
Berl. & De Toni in Sacc. Syll. **7**: 234. *d.* 15 March 1888.
Bomm. & Rouss. in Durand & Pittier, Bull. Soc. Bot. Belg. **35**[1]: 156. 1896.
Berl. Icon. Phyc. 8. *d. pl. 5*. 1898.
Berl. Riv. Patol. Veg. **9**: 19. *d. f. 3*. 20 Feb. 1901.

Cystopus Ipomœæ-panduranæ, Farl.
Farl. Bot. Gaz. **14**: 187, 189. Aug. 1889.
Swingle, Tr. Kans. Acad. **11**: 67, 68. *d.* 1 Nov. 1889.
Halsted, Jour. Myc. **5**: 203. Dec. 1889.
Halsted, Bot. Gaz. **15**: 323. Dec. 1890.
*Seymour & Earle, E. F. *47*. 1 Jan. 1890.
Halsted, Rusts, Smuts, Ergots and Rots 19. June 1890.
Halsted, Bull. N. J. Exp. Sta. 76: 28–30. *f. 19*. 1890.
Swingle, Tr. Kans. Acad. **12**: 131. 30 March 1891.
Sacc. Syll. **9**: 341. *d.* 15 Sept. 1891.
Halsted, Bot. Gaz. **16**: 340. Dec. 1891.
Webber, Tr. St. Louis Acad. **6**: 11. 12 March 1892 and Contr. Bot. Dept. Univ. Nebr. 3: 11. 14 June 1892.
Halsted, Rept. N. J. Exp. Sta. **1891**: 249. 1892.
*Seymour & Earle, E. F. *334, 336, 337*. 1 May 1893.
Halsted, Rept. N. J. Exp. Sta. **1892**: 277, 348. 1893.
Atk. Bull. Cornell Univ. **3**: 14. 25 June 1897.
Townsend, Bull. Md. Exp. Sta. 60: 166. *f. 60*. March 1899.
Selby, Bull. Ohio Exp. Sta. 121: 56. Sept. 1900.
Hume, Rept. Fla. Exp. Sta. **1900**: 39. 1900.
Berl. Riv. Patol. Veg. **9**: 14. *d.* 20 Feb. 1901.
Sturgis, Rept. Conn. Exp. Sta. **24**: 289. 1901.

Cystopus candidus, var. ***Convolvuli,*** Berl.
Berl. Icon. Phyc. 7. *d.* 1898.

?Albugo Convolvulacearum, Henn.
Henn. Hedw. **37**: 277. 31 Dec. 1898.

Albugo Tragopogonis, Auct. Amer. p.p.
Ell. & Kelsey in Millsp. Publ. Field Columb. Mus. Bot. **1**: 465. Nov. 1902. [Publ. 68.]

Albugo Platensis, (Speg.) Swingle.
Swingle, Jour. Myc. **7**: 113. April 1892.
Long, Bull. Torr. Bot. Club. **27**: 586. 14 Nov. 1900.
Patterson, Bull. U. S. Agr. Pl. Industry 8: 17. 3 Feb. 1902.
*Barthol., Ell. & Ev. Fung. Columb. *1605*. Oct. 1902.

Cystopus Platensis, Speg.
Speg. Revista Argent. Hist. Nat. **1**: 32 (7). *d.* 1 Feb. 1891 and Jour. Myc. **7**: 115. *d.* April 1892.*
Berl. Riv. Patol. Veg. **9**: 27. *d.* 20 Feb. 1901.

Albugo Bliti, Vestergren.
*Vestergren, Micr. Sel. *586*. Dec. 1902.

Albugo Portulacæ, (D C.) O. Kuntze.
Kuntze, O., Rev. Gen. Pl. **2**: 658. 1891.
Swingle, Jour. Myc. **7**: 111. April 1892.
Schrt. in Engler & Prantl, Pflanzenfam. **1**[1]: 112. *d. f. 96.* Aug. 1893.
Underw. Proc. Ind. Acad. **1893**: 32. Aug. 1894.
Clements, Fl. Nebr. 1: 57. *d. pl. 16, f. 3 a, b.* 1894.
Kellerm. & Werner. Geol. Ohio **7**[2]: 348. Jan. 1895.
Tracy & Earle, Bull. Miss. Exp. Sta. 34: 94. May 1895.
Pammel, Proc. Iowa Acad. **2**: 203. 1895.
Stevens, Rept. Ohio Acad. **4**: 20. 1896.
Underw. & Earle, Bull. Ala. Exp. Sta. 80: 136. 28 June 1897.
Long, Bull. Torr. Bot. Club. **27**; 586. 14 Nov. 1900.
Earle in Mohr, Contr. U. S. Nat. Herb. **6**: 152. 31 July 1901.
Stevens, F. L., Bot. Gaz. **32**: 79, 97. *pl. 1. pl. 4, f. 44–46, 48–50.* 20 Aug. 1901 and **32**: 254. 21 Oct. 1901.
Patterson, Bull. U. S. Agr. Pl. Industry 8: 17. 3 Feb. 1902.
*Kellerm. Ohio Fungi *83. d.* Oct. 1902.
Kellerm. Jour. Myc. **8**: 120. *d.* 14 Oct. 1902.
Cæoma candidum, S. Am. Bor. p.p.
S. Syn. Am. Bor. 292 no. 2852. 1834.
Cystopus candidus, Pk. p.p. non Lev.
Pk. Rept. N. Y. Mus. **24**: 103. 1872.
Cystopus Portulacæ, Lev.
Cke. Grev. **7**: 46. Dec. 1878.
Pk. Rept. N. Y. Mus **29**: 51, 76. 1878.
*Rav. Fung. Am. *500.* 1881.
Farl. Bot. Gaz. **8**: 336. *d.* Nov. 1883.
Bundy, Geol. Wis. 1873–79, **1**: 400. 1883.
Pk. in Day's Cat., Bull. Buf. Soc. **4**: 213 (149). 1883.
Trel. Tr. Wis. Acad. **6**: 108 (4). Nov. 1884.
Bessey, Bull. Iowa Agr. Coll. **1884**: 140. Jan. 1885. [83. 1885.
Kellerm. Bull. Wash. Lab. **1**; 78. Jan. 1885 and Tr. Kans. Acad. **9**:
Wint. & Demet. Hedw. **24**: 201 (25). Oct. 1885.
*Ell. & Ev. N. A. F. *1808.* 1887.
Kellerm. & Carl. Tr. Kans. Acad. **10**: 94. 1887.
Berl. & De Toni in Sacc. Syll. **7**: 235. *d.* 15 March 1888.
Halsted, Bot. Gaz. **13**: 57. March 1888.
Halsted, Bull. Iowa Agr. Coll. **1888**: 101. April 1888.
Tracy & Gall. Jour. Myc. **4**: 36. May 1888.
Macbr. & Hitchcock, Bull. Univ. Iowa **1**: 51. Nov. 1888.
Halsted, Jour. Myc. **5**: 10. March 1889.
Swingle, Tr. Kans. Acad. **11**: 68. 1 Nov. 1889.
Webber, Bull. Nebr. Exp. Sta. **1**: 361 (91). 18 Dec. 1889.
Ell. in Cat. Pl. N. J. 594. 1889.
Jennings, Bull. Tex. Exp. Sta. 9: 25. May 1890.
Swingle, Tr. Kans. Acad. **12**: 131. 1890.
Webber, Rept. Nebr. Agr. **1889**: 190 (50). 1890.
Halsted, Bot. Gaz. **16**: 340. Dec. 1891.
Williams, Bull. S. Dak. Exp. Sta. 29: 46. Dec. 1891.
Halsted, Rept. N. J. Exp. Sta. **1891**: 249. 1892.
*Seymour & Earle, E. F. *264.* 1 May 1893.
*Ell. & Ev. Fung. Columb. *45.* 1893.
Halsted, Rept. N. J. Exp. Sta. **1892**: 278, 346. 1893.
Halsted, Rept. N. J. Exp. Sta. **1893**: 327. 1894.
Millsp. & Nutt. Publ. Field Columb. Mus. Bot. **1**: 83. Jan. 1896.
Pammel & Carver Proc. Iowa Acad. **3**: 144. 1896.
Atk. Bull. Cornell Univ. **3**: 14. 25 June 1897.
Tubeuf-Smith, Diseases of Plants 127. 1897.

Halsted, Bull. Torr. Bot. Club. **25**: 333. 8 June 1898.
Orton, Rept. Vt. Exp. Sta. **11**: 203. Sept. 1898 and Contr. Bot. Vt. 2: 5. Sept. 1898.
Halsted, Bull. Torr. Bot. Club. **25**: 577. 7 Nov. 1898.
Berl. Icon. Phyc. 7. *d. pl. 2, f. 2. pl. 3.* 1898.
Hume, Proc. Davenport Acad. **7**: 253. 12 May 1899.
Berl. Riv. Patol. Veg. **9**: 16. *d. f. 2.* 20 Feb. 1901.
*Griffiths, West Am. Fung. *31.* 22 March 1902.

Albugo pulverulentus, (B. & C.) O. Kuntze.

NOTE. This species, said to grow on some Composite in Cuba, cannot be traced in Herb. Curtis by the numbers cited in the original description and it is impossible to recognize the fungus from the description. All the species of *Cystopus* in Herb. Curtis from Cuba are labeled *Cystopus cubicus.*

Kuntze, O., Rev. Gen. Pl. **2**: 658. 1891.
Cystopus pulverulentus, B. & C.
B. & C. Jour. Linn. Soc. **10**: 357. *d.* 1869. West Indies.
Berl. & De Toni in Sacc. Syll. **7**: 237. *d.* 15 March 1888.

Albugo Tragopogonis, (P.) S. F. Gray.

NOTE. See note under *Albugo pulverulentus,* (B. & C.) O. Kuntze.

Swingle, Jour. Myc. **7**: 112. April 1892.
Davis, J. J., Tr. Wis. Acad. **9**: 154. 21 Aug. 1893.
Schrt. in Engler & Prantl, Pflanzenfam. **1**[1]: 112. *d.* Aug. 1893.
Clements, Fl. Nebr. 1: 58. *d.* 1894.
Kellerm. & Werner, Geol. Ohio **7**[2]: 348. Jan. 1895.
Underw. & Earle, Bull. Ala. Exp. Sta. 80: 136. 28 June 1897.
Stevens, F. L., Ber. Deutsch. Bot. Ges. **19**: 171. *pl. 8.* 24 April 1901.
Earle in Mohr. Contr. U. S. Nat. Herb. **6**: 152. 31 July 1901.
Stevens, F. L., Bot. Gaz. **32**: 85, 97. *pl. 3, pl. 4, f. 43, 53.* 20 Aug. 1901 and **32**: 254. 21 Oct. 1901.
Patterson, Bull. U. S. Agr. Pl. Industry 8: 17. 3 Feb. 1902.
*Griffiths, West Am. Fung. *336.* 21 May 1902.
*Vestergren, Micr. Sel. *705*[*b*]. Oct. 1903.
Clint. Rept. Conn. Exp. Sta. **27**: 357. May 1904.
Cystopus cubicus, (Strauss) Lev.
Pk. Rept. N. Y. Mus. **25**: 91. Sept. 1873.
Farl. Bull. Bussey Inst. **1**: 429, 432. March 1876.
Burrill, Bull. Ill. Lab. **1**[1]: 57. Dec. 1876.
Pk. Rept. N. Y. Mus. **29**: 76. 1878.
Pk. Rept. N. Y. Mus. **30**: 77. Sept. 1878.
*Ell. N. A. F. *205.* 1879.
Farl. Bot. Gaz. **8**: 335. *d.* Nov. 1883.
Pk. in Day's Cat., Bull. Buf. Soc. **4**: 212 (148). 1883.
Farl. Bot. Gaz. **9**: 40. March 1884.
Trel. Tr. Wis. Acad. **6**: 108 (4). Nov. 1884.
Hark. Bull. Cal. Acad. **1**: 163. 7 March 1885.
Wint. & Demet. Hedw. **24**: 201 (25). Oct. 1885.
Pk. Rept. N. Y. Mus. **38**: 111. 1885.
Arth. & Holw. Bull. Minn. Surv. 3: 36. 1 Oct. 1887.
?Langlois, Cat. Pl. La. 29. 1887.
?Brendel, Fl. Peoriana 2 ed. 69. 1887.
Halsted, Bot. Gaz. **13**: 57. March 1888.
Halsted, Bull. Iowa Agr. Coll. **1888**: 100. April 1888.
Tracy & Gall. Jour. Myc. **4**: 36. *d.* May 1888.
Macbr. Bull. Univ. Iowa **1**: 51. Nov. 1888.
*Ell. & Ev. N. A. F. *2208.* Feb. 1889.
Halsted, Jour. Myc. **5**: 10. March 1889.

Farl. Bot. Gaz. **14**: 188. Aug. 1889.
*Ell. & Ev. N. A. F. *2421*. April 1890.
Cystopus spinulosus, D By.
Farl. Bull. Bussey Inst. **1**: 429. March 1876.
Pk. Rept. N. Y. Mus. **29**: 51, 76. 1878.
Pk. in Day's Cat., Bull. Buf. Soc. **4**: 213 (149). 1883.
Halsted, Rept. N. J. Exp. Sta. **1892**: 278. 1893.
Cystopus Tragopogonis, Schrt.
Kelsey, Jour. Myc. **5**: 81. June 1889.
Swingle, Tr. Kans. Acad. **11**: 68. 1 Nov. 1889.
Webber, Rept. Nebr. Agr. **1889**: 190 (50). 1890.
Williams, Bull. S. Dak. Exp. Sta. 29: 46. Dec. 1891.
Webber, Tr. St. Louis Acad. **6**: 3. 12 March 1892 and Contr. Bot. Dept. Univ. Nebr. 3: 4. 14 June 1892.
Williams, Bull. Torr. Bot. Club **19**: 83. 5 March 1892.
*Seymour & Earle, E. F. *291, 302*. 1 May 1893.
Halsted, Rept. N. J. Exp. Sta. **1892**: 278, 347. 1893.
*Seymour & Earle, E. F. *445*. 1 July 1895.
Halsted, Rept. N. J. Exp. Sta. **1894**: 355. 1895.
*Ell. & Ev. Fung. Columb. *878*. April 1896.
Pammel & Carver Proc. Iowa Acad. **3**: 144. 1896.
Atk. Bull. Cornell Univ. **3**: 14. 25 June 1897.
Tubeuf-Smith, Diseases of Plants 127. 1897.
Orton, Rept. Vt. Exp. Sta. **11**: 203. Sept. 1898 and Contr. Bot. Vt. 2: 5. Sept. 1898.
Berl. Icon. Phyc. 8. *d. pl. 5*. 1898.
Hume, Proc. Davenport Acad. **7**: 253. 1899.
Berl. Riv. Patol. Veg. **9**: 19. *d. f. 3*. 20 Feb. 1901.
Sturgis, Rept. Conn. Exp. Sta. **24**: 286. 1901.
Cystopus Tragopogonis, var. ***spinulosus,*** J. J. Davis.
Davis, J. J., Tr. Wis. Acad. **11**: 165. Aug. 1897.

Albugo Tragopogonis, Auct. Amer. p.p.
See ***Albugo Ipomœæ-panduranæ,*** (S.) Swingle.

Aleurina, Sacc.
Rehm, Ann. Myc. **1**: 514. 10 Dec. 1903.

Aleurina fusecocarpa, (Ell. & Holw.) Sacc. & Syd.
Sacc. & Syd. Syll. **16**: 739. 1 Feb. 1902.
Rehm, Ann. Myc. **1**: 514. *d.* 10 Dec. 1903.
Peziza fuscocarpa, Ell. & Holw.
Ell. & Holw. Jour. Myc. **1**: 5. *d.* Jan. 1885.
Arth. & Holw. Bull. Minn. Surv. 3: 35. 1 Oct. 1887.
Langlois, Cat. Pl. La. 32. 1887.
*Ell. & Ev. N. A. F. *2325*. 1890.
Phæopezia fuscocarpa, Sacc.
Sacc. Syll. **8**: 474. *d.* 20 Dec. 1889.
Durand, Bull. Torr. Bot. Club **27**: 479. *d.* 29 Sept. 1900.
Humaria fuscocarpa, Morg.
Morg. Jour. Myc. **8**: 189. 20 Dec. 1902.

Aleurina lignicola, (Rostr.) Sacc. & Syd.
Sacc. & Syd. Syll. **16**: 739. 1 Feb. 1902.
Rehm, Ann. Myc. **1**: 514. 10 Dec. 1903.
Phæopezia lignicola, Rostr.
Rostr. Meddelelser om Groenl. **18**: 58 (16). *d.* 1894.
Sacc. Syll. **11**: 415. *d.* July 1895.

Aleurina Lloydiana, Rehm.
Rehm, Ann. Myc. **1**: 515. 10 Dec. 1903.
Rehm, Ann. Myc. **2**: 35. *d.* 15 Feb. 1904.

Aleurina Novæ-Terræ, (Ell. & Ev.) Sacc. & Syd.
Sacc. & Syd. Syll. **16:** 738. *d.* 1 Feb. 1902.
Rehm, Ann. Myc. **1:** 514. 10 Dec. 1903.
Phæopeziza Novæ-Terræ, Ell. & Ev.
Ell. & Ev. Bull. Torr. Bot. Club **25:** 507. *d.* 10 Sept. 1898.

Aleurina vinacea, (Clements) Sacc. & Syd.
Sacc. & Syd. Syll. **16:** 740. 1 Feb. 1902.
Rehm, Ann. Myc. **1:** 515. 10 Dec. 1903.
Phæopezia vinacea, Clements.
Pound, Clements and others, Bot. Surv. Nebr. 4: 16. *d.* 20 Jan. 1896.
Sacc. & Lindau, Hedw. **36:** Rep. 7: xxxi. 30 April 1897.
Sacc. & Syd. Syll. **14:** 781. *d.* 20 Aug. 1899.

Aleurina Wisconsinensis, Rehm.
Rehm, Ann. Myc. **2:** 34. *d.* 15 Feb. 1904.

Aleurodiscus amorphus, Rabh.
See ***Corticium amorphum,*** (P.) Fr.

Aleurodiscus disciformis, Pat.
See ***Peniophora disciformis,*** (D C.) Cke.

Aleurodiscus Mancinianus, Pat.
See ***Stereum Mancinianum,*** Sacc. & Cub.

Aleurodiscus Micheneri, (B. & C.) Massee.

NOTE. Under the name *Michenera Artocreas,* B. & C. this was made the type of the genus *Michenera,* a genus which, so far as the type species at least is concerned, cannot be accepted. *Michenera Artocreas* as shown by cultures is undoubtedly merely a conidial form of a *Corticium,* probably *C. subgiganteum,* B. and the references to the conidial stage as given below are inserted here provisionally for convenience.

Massee, Jour. Linn. Soc. **25:** 120. 8 June 1889.
Michenera Artocreas, B. & C.
B. & C. Jour. Linn. Soc. **10:** 333. *d.* 1869.
Pk. Rept. N. Y. Mus. **28:** 52. 1876.
B. & Br. Jour. Linn. Soc. **15:** 83. 3 March 1876.
Sacc. Cub. & Manc. Syll. **6:** 653. *d.* 1 Aug. 1888.
Peirce, Bull. Torr. Bot. Club **17:** 306. *pl. 110, f. k–n.* Dec. 1890
Pat. Bull. Soc. Myc. **7:** 42 (3). *pl. 4, f. 1–5.* 1891.
*Ell. & Ev. N. A. F. *3102.* Nov. 1894.
Henn. in Engler & Prantl, Pflanzenfam. **1**1**: 120. *d. f. 67 H. J.* 1898.
Pat. Essai Tax. Hymen. 67. *d. f. 46.* 1900.
Artocreas Micheneri, B. & C.
B. & C. in B. & Br. Jour. Linn. Soc. **14:** 73. *d.* 1875.
*Ell. N. A. F. *105.* 1878.
Massee, Jour. Roy. Micr. Soc. **1888:** 173 (1). April 1888.
Ell. in Cat. Pl. N. J. 492. 1889.

Aleurodiscus Oakesii, Cke.
See ***Corticium Oakesii,*** B. & C.

Allantonectria, Earle.
Earle in Greene, Pl. Baker. **2:** 11. *d.* 25 March 1901.
Sacc. & Syd. Syll. **16:** 1140. *d.* 1 Feb. 1902.

Allantonectria Yuccæ, Earle.
Earle in Greene, Pl. Baker. **2:** 12. *d.* 25 March 1901.
Sacc. & Syd. Syll. **16:** 1140. 1 Feb. 1902.
Sacc. Syll. **17:** 778. *d.* 25 May 1905.

Allantospora radicicola, Wakk.
Howard, Bull. Bot. Dept. Jamaica II. **8**: 181. 1901 and Exp. Sta. Rec. **14**: 58. 1902. West Indies.

Allescherina, Berl.

NOTE. This genus is certainly very closely related to *Cryptovalsa*, being distinguished from it only by the fact that the perithecia are separated and not collected in definite groups.

Berl. in Abbado, Malpighia **16**: 300. *d.* 1902 and Jour. Myc. **10**: 205. *d.* 24 June 1904.
Berl. & Sacc. Icon. **3**: 108. *d.* March 1905.

Allescherina deusta, (Ell. & Martin) Berl.
Berl. in Abbado, Malpighia **16**: 303. *d.* 1902.
Berl. & Sacc. Icon. **3**: 109. *d. pl. 136, f. 1.* March 1905.
Diatrypella deusta, Ell. & Martin.
Ell. & Martin, Am. Nat. **16**: 809. *d.* Oct. 1882.
Sacc. Syll. **2**: Add. p. ix. *d.* 13 Jan. 1883.
*Ell. N. A. F. *1184.* 1884.
Calkins, Jour. Myc. **3**: 70. June 1887
*Rehm, Ascomyceten *935.* June 1888.
Rehm, Hedw. **27**: 172. *d.* June 1888.
Sacc. Syll. **9**: 478. *d.* 15 Sept. 1891.
Ell. & Ev. Pyren. 593. *d.* May 1892.
*Ell. & Ev. Fung. Columb. *1242.* May 1898.
Diatrype deusta, Cke.
Cke. Grev. **14**: 15. Sept. 1885.

Allescherina eutypæformis, (Sacc.) Berl.
Berl. in Abbado, Malpighia **16**: 306. *d.* 1902.
Berl. & Sacc. Icon. **3**: 110. *d. pl. 137, f. 2.* March 1905.
Diatrype quercina, (P.) Fr., var. ***lignicola,*** C & E.
C. & E. Grev. **5**: 54. *d.* Dec. 1876.
Cryptovalsa entypæformis, Sacc.
Sacc. Mich. **2**: 569. *d.* Dec. 1882.
Sacc. Syll. **2**: Add. p. viii. *d.* 13 June 1883.
Sacc. Syll. **9**: 471. *d.* 15 Sept. 1891.
Ell. & Ev. Pyren. 517. *d.* May 1892.
Pk. Rept. N. Y. Mus. **54**[1]: 157. Dec. 1901.

Allescherina sparsa, (Ell. & Ev.) Berl.
Berl. in Abbado, Malpighia **16**: 303. *d.* 1902.
Berl. & Sacc. Icon. **3**: 109. *d. pl. 135, f. 2.* March 1905.
Cryptovalsa sparsa, Ell. & Ev.
Ell. & Ev. Proc. Phil. Acad. **1890**: 224. *d.* 1890.
Sacc. Syll. **9**: 472. *d.* 15 Sept. 1891.
Ell. & Ev. Pyren. 515. *d.* May 1892.
Valsa sparsa, Lindau.
Lindau in Engler & Prantl, Pflanzenfam. **1**[1]: 459. Feb. 1897.

Allophylaria Senecionis, Clements.
Clements, Bull. Torr. Bot. Club. **30**: 88. *d.* 28 Feb. 1903.

Alternaria.

NOTE. The references to species of this genus have been arranged by A. B. Seymour.

Alternaria Brassicæ, (B.) Sacc.
*Ell. & Ev. N. A. F. *3596.* 24 Jan. 1898.
*Seymour & Earle, E. F. *515,* 7 June 1899.
Ricker, Univ. of Maine Studies 3: 21. 30 April 1902.
Clint. Rept. Conn. Exp. Sta. **27**: 311, 332. May 1904.

Alternaria Brassicæ, (B.) Sacc., var. **Citri,** Penz.
Langlois, Cat. Pl. La. 27. 1887.

Alternaria Brassicæ, (B.) Sacc., var. **macrospora,** Sacc.
Clint. Rept. Conn. Exp. Sta. **27:** 311, 353. May 1904.

Alternaria Brassicæ, (B.) Sacc., var. **nigrescens,** Pegl.

NOTE. The synonymy of this species is stated by Clinton, 1904. For other references to cucurbitaceous hosts see *Alternaria*, sp. indet.

Selby, Jour. Columbus Hort. Soc. **11:** 114 (2) *pl. 1.* Dec. 1896.
Selby, Bull. Ohio Exp. Sta. 73: 235. *f. 3.* Dec. 1896.
Selby, Rept. Ohio Acad. **5:** 70 (4). 1897.
Sturgis, Rept. Conn. Exp. Sta. **22:** 235. 1899.
Sturgis, Rept. Conn. Exp. Sta. **24:** 275, 292. 1901.
Chester, Rept. Del. Exp. Sta. **13:** 38. *f. 2–4. d.* 1902.
Clint. Rept. Conn. Exp. Sta. **27:** 331, 370. May 1904.

Macrosporium cucumerinum, Ell. & Ev.
Ell. & Ev. Proc. Phila. Acad. **1895:** 440. *d.* Nov. 1895.
Sacc. Hedw. **35:** Rep. 7: xlix. 25 Feb. 1896.
*Ell. & Ev. N. A. F. *3396.* Feb. 1896.
Sacc. & Syd. Syll. **14:** 1095. *d.* 20 Aug. 1899.
Quaintance, Rept. Ga. Exp. Sta. **13:** 357. Jan. 1901.
Griffin, Bull. Colo. Exp. Sta. 62: 7. April 1901.
Griffin, Bull. Colo. Exp. 64: 12. June 1901.
Hume, Rept. Fla. Exp. Sta. **1901:** 86. *d. f.* 1901.
Norton, Rept. Md. Hort. Soc. **4:** 31. 1902.
Chester, Bull. Del. Exp. Sta. 57: 3. *d. f. 1, 2.* June 1902.
Chester, Rept. Del. Exp. Sta. **13:** 36. *d. f. 1, 5–7.* 1902.

Alternaria chartarum, Preuss.
Pk. Rept. N. Y. Mus. **33:** 28. Oct. 1883.
Langlois, Cat. Pl. La. 27. 1887.
*Ell. & Ev. N. A. F. *2192.* Feb. 1889.

Alternaria Citri, Pierce.
Pierce, Bot. Gaz. **33:** 234. *d.* 22 March 1902.
Orton, Yearb. U. S. Agr. **1902:** 717. 1903.

Alternaria fasciculata, (C. & E.) Jones & Grout.

NOTE. This species and *Alternaria Solani* have been confused by various writers, some considering them to be the same, others writing so vaguely that it is impossible to state with certainty what species is implied. The present arrangement of these two species depends chiefly on the results of cultures and the synonymy given by Jones, 1896, 1897, 1898, 1899.

Jones & Grout, Bull. Torr. Bot. Club **24:** 257. *d. pl. 308, f. 4–6.* 29 May 1897.
Jones, L. R., Rept. Vt. Exp. Sta. **10:** 51. 1898.
*Ell. & Ev. Fung. Columb. *1368.* May 1899.
*Seymour & Earle, E. F. *522.* 7 June 1899.
Jones, L. R., Bull. Vt. Exp. Sta. 72: 10, 24. *f.* 11^{4-6}. Sept. 1899.
Orton, Rept. Vt. Exp. Sta. **12:** 178. Dec. 1899 and Contr. Bot. Vt. 7: 178. Dec. 1899.

Macrosporium chartarum, Pk.
Pk. Bull. Buf. Soc. **1:** 69. *d.* July 1873.
Pk. Rept. N. Y. Mus. **25:** 93. *d.* Sept. 1873.
Cke. Bull. Buf. Soc. **3:** 200. July 1877.
Johnson, Bull. Minn. Acad. **1:** 367. 1880.
*Ell. N. A. F. *648.* 1881.
Pk. in Day's Cat., Bull. Buf. Soc. **4:** 211 (147). 1883.
Sacc. Syll. **4:** 539. *d.* 10 April 1886.

Ell. in Cat. Pl. N. J. 570. 1889.
Webber, Rept. Nebr. Agr. **1889**: 225 (85). 1890.
*Ell. & Ev. Fung. Columb. *396*. 1894.
Lindau in Engler & Prantl, Pflanzenfam. I 1**: 484. Feb. 1900.
Macrosporium fasciculatum, C. & E.
C. & E. Grev. **6**: 6. *d. pl. 96, f. 30*. Sept. 1877.
C. & E. Grev. **6**: 88. March 1878.
*Ell. N. A. F. *52*. 1878.
*Thm. Myc. Univ. *1870*. 1881.
Sacc. Syll. **4**: 525. *d.* 10 April 1886.
Ell. in Cat. Pl. N. J. 570. 1889.
*Ell. & Ev. Fung. Columb. *399*. 1894.
Pound, Clements and others, Bot. Surv. Nebr. 4: 39. 20 Jan. 1896.
Macrosporium Maydis, C. & E.
C. & E. Grev. **6**: 87. *d.* March 1878.
Kellerm. Bull. Wash. Lab. **1**: 78. Jan. 1885 and Tr. Kans. Acad. **9**: 83. 1885.
Sacc. Syll. **4**: 536. *d.* 10 April 1886.
*Wint. Fung. Eur. *3592*. 1886.
Kellerm. & Carl. Tr. Kans. Acad. **10**: 94. 1887.
Langlois, Cat. Pl. La. 31. 1887.
Ell. in Cat. Pl. N. J. 570. 1889.
*Ell. & Ev. N. A. F. *3098*. April 1894.
*Ell. & Ev. Fung. Columb. *383*. 1894.
Ell. Rept. Del. Exp. Sta. **6**: 32. Jan. 1895.
McClatchie in Reid's Hist. Pasadena 618. 1895.
Pound, Clements and others, Bot. Surv. Nebr. 4: 39. 20 Jan. 1896.
Millsp. & Nutt. Publ. Field Columb. Mus. Bot. **1**: 96. Jan. 1896.
*Shear, N. Y. Fungi *393*. March 1896.
McClatchie, Proc. S. Cal. Acad. **1**: 376. 5 June 1897.
Macrosporium Tomato, Cke.
*Rav. Fung. Am. *603*. 1882.
Cke. Grev. **12**: 32. *d.* Sept. 1883.
Sacc. Syll. **4**: 534. *d.* 10 April 1886.
Pk. Rept. N. Y. Mus. **40**: 65. May 1888.
Gall. Rept. U. S. Agr. **1888**: 341. *d. pl. 3, f. 1–7*. 1889.
*Ell. & Ev. N. A. F. *2484*. April 1890.
Thax. Rept. Conn. Exp. Sta. **14**: 95 (17). 1891.
Millsp. Bull. W. Va. Exp. Sta. 24: 516. June 1892.
Halsted, Rept. N. J. Exp. Sta. **1894**: 360. 1895.
Millsp. & Nutt. Publ. Field Columb. Mus. **1**: 96. Jan. 1896.
Underw. & Earle, Bull. Ala. Exp. Sta. 69: 262. Feb. 1896.
Stewart, Rept. N. Y. Exp. Sta. **14**: 531. 1896.
Stewart, Bull. N. Y. Exp. Sta. 125: 305. *pl. 8*. July 1897.
Halsted, Bull. Penn. Dept. Agr. 28: 17. 1897.
Selby, Jour. Columbus Hort. Soc. **11**: 115 (3). 1897.
Anderson, J. R., Brit. Columb. Dept. Agr. **1897**: 54. 1897.
Jones, H. L., Oberlin College Lab. Bull. 9: 6. 15 June 1898.
Beach, Rept. N. Y. Exp. Sta. **16**: 271. *pl. 9*. 1898.
Massee, Textbk. Pl. Diseases 325. *d. f. 89*. 1899.
Earle, Bull. Ala. Exp. Sta. 108: 21. April 1900.
Quaintance, Rept. Ga. Exp. Sta. **13**: 358. *pl. 7*. Jan. 1901.
Clint. Rept. Conn. Exp. Sta. **27**: 365. May 1904.
Halsted, Rept. N. J. Exp. Sta. **1903**: 546. 1904.
Alternaria Solani, Sorauer, p. p.
Sorauer, Zeitschr. Pflanzenkr. **6**: 6. 1896.
Alternaria Tomato, Jones.
Jones, Bull. Torr. Bot. Club **23**: 353. 25 Sept. 1896.

Alternaria hispidula, Ell.
Ell. Bull. Torr. Bot. Club **10**: 52. *d.* May 1883.
Sacc. Syll. **4**: 546. *d.* 10 April 1886.

Alternaria lancipes, Ell. & Ev.
Ell. & Ev. Jour. Myc. **4**: 45. *d.* May 1888.
Sacc. Syll. **10**: 679. *d.* 30 June 1892.

Alternaria Solani, (Ell. & Martin) Jones & Grout.

NOTE. See note under *Alternaria fasciculata*.

Jones, L. R., Bull. Torr. Bot. Club **23**: 353. 25 Sept. 1896.
Selby, Bull. Ohio Exp. Sta. 73: 241. Dec. 1896.
*Seymour & Earle, E. F. *521.* 7 June 1899.
Jones, L. R., Bull. Vt. Exp. Sta. 72: 16. *f. 8–10,* 11^{1-3}. Sept. 1899.
Orton, Rept. Vt. Exp. Sta. **12**: 179. Dec. 1899 and Contr. Bot. Vt. 7: 179. Dec. 1899.
Earle, Bull. Ala. Exp. Sta. 108: 32. *d.* April 1900.
Selby, Bull. Ohio Exp. Sta. 121: 50. *f. 44.* Sept. 1900.
Sturgis, Rept. Conn. Exp. Sta. **24**: 283, 290. 1901.
Norton, Rept. Md. Hort. Soc. **4**: 31. 1902.
Halsted, Rept. N. J. Exp. Sta. **1902**: 422. 1903.
Jones, Tr. Mass. Hort. Soc. **1903**: 150. 1903.
Macoun, Rept. Ont. Agr. Union **1902**: 42. 1903.
Clint. Rept. Conn. Exp. Sta. **27**: 320, 349, 365. May 1904.
Orton, Yearb. U. S. Agr. **1903**: 552, 553. 1904.
Macrosporium Solani, Ell. & Martin.
Ell. & Martin, Am. Nat. **16**: 1003. *d.* Oct. 1882.
*Ell. N. A. F. *1265.* 1884.
Kellerm. Bull. Wash. Lab. **1**: 78. Jan. 1885 and Tr. Kans. Acad. **9**: 83. 1885.
Arth. Rept. N. Y. Exp. Sta. **4**: 250. Jan. 1886.
Kellerm. & Carl. Tr. Kans. Acad. **10**: 94. 1887.
Langlois, Cat. Pl. La. 31. 1887.
Ell. in Cat. Pl. N. J. 570. 1889.
*Ell. & Ev. N. A. F. *2485.* April 1890.
Halsted, Rusts, Smuts, Ergots and Rots, 19. June 1890.
Gall. Bull. U. S. Agr. Veg. Pathol. 11: 88. 1890.
Webber, Rept. Nebr. Agr. **1889**: 225 (85). 1890.
Chester, Bull. Del. Exp. Sta. 15: 14. Jan. 1892.
Briosi & Cav. Fung. Piante Colt. 190. *d. f.* April 1892.
Chester, Rept. Del. Exp. Sta. **4**: 58. *d. f. 4–7.* 1892.
Woolverton Jour. Hamilton Assoc. **8**: 86. *f. 11.* 1892.
Pammel, Bull. Iowa Exp. Sta. 20: 719. Feb. 1893.
*Seymour & Earle, E. F. *339, 340.* 1 May 1893.
Gall. Agr. Sci. **7**: 370. Sept. 1893.
Rolfs, Bull. Fla. Exp. Sta. 21: 36. Oct. 1893.
Burrill, Proc. Soc. Prom. Agr. Sci. **12**: 29. 1893.
Chester, Rept. Del. Exp. Sta. **5**: 67. 1893.
Fletcher, Rept. Exp. Farms Can. **1892**: 21. 1893.
Gall. Proc. Soc. Prom. Agr. Sci. **14**: 46. 1893.
Halsted, Rept. N. J. Exp. Sta. **1892**: 348. 1893.
Jones, L. R., Rept. Vt. Exp. Sta. **6**: 67. *pl. 4.* 1893.
Piper, Bull. Wash. Exp. Sta. 8: 137. June 1893.
Lamson, Bull. N. H. Exp. Sta. **22**: 3. *d.* May 1894.
*Ell. & Ev. Fung. Columb. *398.* 1894.
Gall. Rept. U. S. Agr. **1893**: 260, 261. *f. 1.* 1894.
Sturgis, Rept. Conn. Exp. Sta. **17**: 101. 1894.
Goff, Rept. Wis. Exp. Sta. **10**: 245. 1894.
Clint. Bull. Ill. Exp. Sta. 40: 137. *f. 2.* April 1895.

Fletcher, Bull. Cent. Exp. Farm Can. 23: 24. *f. 5.* April 1895.
Taft & Davis, Bull. Mich. Exp. Sta. **121**: 65. April 1895.
Tracy & Earle, Bull. Miss. Exp. Sta. 34: 121. May 1895.
Jones, L. R., Bull. Vt. Exp. Sta. 49: 91, 93. *f. 1.* 94. *f. 2.* Dec. 1895.
Selby, Jour. Columbus Hort. Soc. **10**: 140 (2). Dec. 1895.
Halsted, Rept. N. J. Exp. Sta. **1894**: 354, 360. *f. 42.* 1895.
McClatchie in Reid's Hist. Pasadena 618. 1895.
Sturgis, Rept. Conn. Exp. Sta. **18**: 127. 1895.
Stewart, Bull. N. Y. Exp. Sta. 101: 72. Feb. 1896.
Garman, Bull. Ky. Exp. Sta. 61: 18. March 1896.
*Ell. & Ev. Fung. Columb. *891.* April 1896.
Jones, L. R., Rept. Vt. Exp. Sta. **9**: 74, 79, 85. *text-f. 12. pl. 1, f. 1–3. pl. 2, f. 8. pl. 3, f. 10.* 1896.
McClatchie, Proc. S. Cal. Acad. **1**: 376. 5 June 1897.
Atk. Bull. Cornell Univ. **3**: 40. 25 June 1897.
Roberts & Clint. Bull. Cornell Exp. Sta. 140: 59. *f. 123.* Nov. 1897.
Halsted, Bull. Penn. Dept. Agr. 28: 10. 1897.
Stewart, Rept. N. Y. Exp. Sta. **15**: 498. 1897.
Tubeuf-Smith, Diseases of Plants 517. 1897.
Anderson, J. R., Brit. Columb. Dept. Agr. **1897**: 54. 1897.
Rolfs, Bull. Fla. Exp. Sta. 47: 124. *d. pl. 1, f. 1.* Sept. 1898.
Stewart, Rept. N. Y. Exp. Sta. **16**: 378. 1898.
Tillinghast & Adams, Bull. R. I. Exp. Sta. 52: 11. Feb. 1899.
Lindau in Engler & Prantl, Pflanzenfam. 1**: 484. Feb. 1900.
Hume, Rept. Fla. Exp. Sta. **1900**: 43. 1900.
Earle in Mohr, Contr. U. S. Nat. Herb. **6**: 247. 31 July 1901.
Ricker, Univ. of Maine Studies 3: 23. 30 April 1902.
*Barthol., Ell. & Ev. Fung. Columb. *1831.* 28 Dec. 1903.

Macrosporium Solani, Cke.

Cke. Grev. **12**: 32. *d.* Sept. 1883.
*Ell. N. A. F. *1265 b.* 1885. [Issued with Cent. XIV.].

Macrosporium Cookei, Sacc.

Sacc. Syll. **4**: 530. *d.* 10 April 1886.
Stevens, F. L., Rept. Ohio Acad. **4**: 23. 1896.
Atk. Bull. Cornell Univ. **3**: 40. 25 June 1897.
Underw. & Earle, Bull. Ala. Exp. Sta. 80: 155. 28 June 1897.
Stevens, F. L., Rept. Ohio Acad. **5**: 64. 1897.
Earle in Mohr, Contr. U. S. Nat. Herb. **6**: 246. 31 July 1901.
Patterson, Bull. U. S. Agr. Pl. Industry 8: 30. 3 Feb. 1902.

Macrosporium Solani, "Rav." sec. Gall.

Gall. Rept. U. S. Agr. **1888**: 400. *pl. 3, f. 1–7.* 1889.
Fairchild, Bull. U. S. Agr. Veg. Pathol. 6: 47, 48. 1894.

Alternaria Solani, Sorauer, p. p.

Sorauer, Zeitschr. Pflanzenkr. **6**: 6. 1896.
Jones, L. R., Rept. Vt. Exp. Sta. **9**: 85, 86. 1896.
Jones & Grout, Bull. Torr. Bot. Club **24**: 257. *d. pl. 308, f. 1–3.* 29 May 1897.
Jones, L. R., Rept. Vt. Exp. Sta. **10**: 45. *d.* 1897.
Gall. Farmers' Bull. U. S. Agr. 91: 5. *f. 1.* 1899.
Patterson, Bull. U. S. Agr. Pl. Industry 8: 27. 3 Feb. 1902.

Alternaria Solani, Sorauer, p. p.
See ***Alternaria fasciculata,*** (C. & E.) Jones & Grout.

Alternaria Solani, Sorauer, p. p.
See ***Alternaria Solani,*** (Ell. & Martin) Jones & Grout.

Alternaria tenuis, Nees.
S. Syn. Am. Bor. 286. no. 2753. 1834.
Wint. & Demet. Hedw. **24**: 201 (25). Oct. 1885.

Pk. Rept. N. Y. Mus. **35**: 139. 1885.
Sacc. Syll. **4**: 545. *d.* 10 April 1886.
Ell. in Cat. Pl. N. J. 571. 1889.
?Atk. Bull. U. S. Agr. Office Exp. Sta. **33**: 282. 1896.
Jelliffe, Druggists Circular **41**: 246. *d. f. 1–3.* Sept. 1897.
Jelliffe, Bull. Torr. Bot. Club **24**: 481. 30 Oct. 1897.
Jones, H. L., Oberlin College Lab. Bull. 9: 4. 15 June 1898.
Earle, Bull. Ala. Exp. Sta. 99: 285. Dec. 1898.
Berl. Fungi Moricolæ fasc. 7: no. 14. *pl. 4, f. 4–6.* 20 July 1899.
Jelliffe, Flora of Long Island 33. 1899.
Earle, Bull. Ala. Exp. Sta. 107: 317. April 1900.
Lindau in Engler & Prantl, Pflanzenfam. **1**^{1}**: 486. *f. 252 H.* Feb. 1900.
Pound & Clements, Bot. Surv. Nebr. 5: 19. 30 March 1901.
*Barthol., Ell. & Ev. Fung. Columb. *1505.* Dec. 1901.

Alternaria tenuis, Nees, var. **condensata,** Sacc.
Sacc. Mich. **2**: 578. 1 Dec. 1882.

Alternaria Tomato, Jones.
See ***Alternaria fasciculata,*** (C. & E.) Jones & Grout.

Alternaria Violæ, Gall. & Dorsett.
Dorsett, Bull. U. S. Agr. V. P. P. 23: 11 *d. pl. 1–7.* 28 Nov. 1900 and Jour. Roy. Hort. Soc. II. **26**: 491. Dec. 1901.
Sturgis, Rept. Conn. Exp. Sta. **24**: 292. 1901.
Sacc. & Syd. Syll. **16**: 1080. *d.* 1 Feb. 1902.
Lewton-Brain, West Indian Bull. **4**: 57. 1903.
Clint. Rept. Conn. Exp. Sta. **27**: 368. *pl. 28, f. d.* May 1904.
Orton, Yearb. U. S. Agr. **1903**: 555. 1904.

Alternaria, sp. indet.

NOTE. On account of their possible importance from an agricultural point of view the following references to unnamed species of *Alternaria* are here inserted. For addition references to cucurbitaceous hosts see *Alternaria Brassicæ,* (B.) Sacc , var. *nigrescens,* Pegl.

On **Aralia.**

Van Hook, Bull. Cornell Exp. Sta. 219: 183. *f. 39–41.* June 1904.

On **Cucurbitaceæ.**

Webber, Rept. Nebr. Agr. **1889**: 225 (85). 1890.
Sturgis, Rept. Conn. Exp. Sta. **20**: 267. 1897.
Selby, Bull. Ohio Exp. Sta. 121: 39. *f. 30.* Sept. 1900.
Sturgis, Rept. Conn. Exp. Sta. **23**: 272. 1900.
Hedgcock, Science II. **16**: 136, 137. 25 July 1902.
Stone & Smith, Rept. Hatch Exp. Sta. **14**: 63. 1902.
Stone & Smith, Rept. Hatch Exp. Sta. **15**: 28, 31. Jan. 1903.

On **Gossypium herbaceum.**

Atk. Bull. Ala. Exp. Sta. 27: 168 (6). *pl. 2, f. 5.* May 1891.
Earle, Bull. Ala. Exp. Sta. 107: 302, 307, 312, 317. April 1900.

On **Linum.**

Bolley, Proc. Soc. Prom. Agr. Sci. **23**: 85 (4). 1902.
Bolley, Bull. N. Dak. Exp. Sta. 55: 187. March 1903.

On **Nicotiana.**

Sturgis, Rept. Conn. Exp. Sta. **23**: 265, 268. 1900.

On **Olea.**

Sturgis, Rept. Conn. Exp. Sta. **24**: 277. 1901.
Bioletti, Rept. Cal. Exp. Sta. **1898-1901**: 306. 1902.

On **Tropæolum majus.**

Halsted, Rept. N. J. Exp. Sta. **1891**: 299. 1892.
Halsted, Rept. N. J. Exp. Sta. **1892**: 290. *d.* 1893.
Sturgis, Rept. Conn. Exp. Sta. **24**: 276. 1901.

On **various garden crops.**

Pound & Clements, Minn. Bot. Studies **9**: 649. *d.* 30 Nov. 1896.
Jones, L. R., Rept. Vt. Exp. Sta. **9**: 85. *pl. 1, f. 4-6. pl. 2, f. 7. pl. 3, f. 9.* 1896.
Hedgcock, Science II. **16**: 136, 137. 25 July 1902.

Alwisia bombarda, B. & Br.
Lister, Jour. of Bot. **42**: 135. *d.* May 1904. West Indies.

Alysidium, Kze.

NOTE. This genus was founded on *Alysidium fulvum,* Kze. of which the North American references are given below. As limited by some authors it includes certain species referred to *Oidium, Oospora,* etc. Since all the fungi of this group are either known or suspected to be imperfect forms of higher fungi it seems to us unnecessary to attempt to settle the question as to what is the oldest name of the genus to which they might be referred and we have preferred to retain most of them in *Oospora,* the genus under which several of our species were first described and under which they are to be found in most recent works.

Alysidium albipes, Pound & Clements.
See ***Oospora albipes,*** (Pk.) Sacc.

Alysidium candidulum, Pound & Clements.
See ***Oospora candidula,*** Sacc.

Alysidium compactum, Pound & Clements.
See ***Oospora compacta,*** (C. & E.) Sacc. & Vogl.

Alysidium cuboideum, Pound & Clements.
See ***Oospora cuboidea,*** Sacc. & Ell.

Alysidium Cucumeris, Pound & Clements.
See ***Oospora Cucumeris,*** Pk.

Alysidium fasciculatum, Pound & Clements.
See ***Oospora fasciculata,*** (B.) Sacc. & Vogl.

Alysidium fulvum, Kze.
Pound & Clements, Minn. Bot. Studies **9**: 650. 30 Nov. 1896.
Oidium fulvum, Lk.
S. Syn. Am. Bor. 285 no. 2745. 1834.
Pk. Rept. N. Y. Mus. **26**: 79. April 1874.
Frost in Cat. Pl. Amherst 87. 1875.
Cobb, List Pl. Amherst 48. 1887.
Bennett, Cat. Pl. R. I. 90. 1888.
Oospora fulva, Sacc. & Vogl.
Sacc. Syll. **4**: 22. *d.* 10 April 1886.
Lindau, Rabh. Krypt.-Fl. 1^8: 46. *d.* 16 May 1904.

Alysidium hyalinulum, Pound & Clements.
See ***Oospora hyalinula,*** Sacc.

Alysidium insulare, Pound & Clements.
See ***Oospora insularis,*** (Thm.) Sacc. & Vogl.

Alysidium lactis, Pound & Clements.
See ***Oospora lactis,*** (Fres.) Sacc.

Alysidium ovalisporum, Pound & Clements.
See ***Oospora ovalispora,*** (B.) Sacc. & Vogl.

Alysidium pallidum, Pound & Clements.
See ***Oospora pallida,*** (B. & Rav.) Sacc. & Vogl.

Alysidium pulvinatum, Pound & Clements.
See ***Oospora pulvinata,*** (B. & C.) Sacc. & Vogl.

Alysidium Tulipiferæ, Pound & Clements.
See ***Oospora Tulipiferæ,*** Ell. & Martin.

Alytosporium, Ehrb.

NOTE. A number of the species of this genus are probably no more than the sterile forms of some higher fungi such as *Thelephoraceæ.* Certain other species have been referred to other genera of *Fungi Imperfecti.*

Alytosporium croceum, Lk.
See ***Sporotrichum croceum,*** Kze.

Alytosporium fulvum, Lk.
S. Syn. Am. Bor. 274 no. 2555. 1834.

Alytosporium fuscum, Lk.
See ***Trichosporium fuscum,*** (Lk.) Sacc.

Alytosporium murinum, Lk.
See ***Trichosporium murinum,*** (Lk.) Sacc.

Alytosporium psittacinum, Lk.
S. Syn. Am. Bor. 274 no. 2553. 1834.

Alytosporium pteridicola, S. nom. nud.

NOTE. This name is cited at the place referred to below but we have not been able to trace it elsewhere.

Cke. Grev. **20:** 22. Sept. 1891.

Amanita abrupta, Pk.
Pk. Bull. Torr. Bot. Club **24:** 138. *d.* 30 March 1897.
Underw. & Earle, Bull. Ala. Exp. Sta. 80: 253. *d.* 28 June 1897.
Lindau & Syd. Hedw. **37:** Beibl. 7: 1. 9 April 1898.
Lloyd, Volvæ 7, 14. *d.* 1898 and Rev. Myc. **21:** 93. July 1899.
Sacc. & Syd. Syll. **14:** 63. *d.* 20 Aug. 1899.
Williams, Asa Gray Bull. **7:** 79. Aug. 1899.
McIlvaine & Macadam, Am. Fung. 23. *d.* 1900.
Earle in Mohr, Contr. U. S. Nat. Herb. **6:** 228. 31 July 1901.

Amanita adnata, W. G. Smith.
See ***Amanitopsis adnata*** (W. G. Smith) Sacc.

Amanita affinis, Frost.
See ***Amanita Frostiana,*** Pk.

Amanita agglutinata, Lloyd.
See ***Amanitopsis agglutinata,*** (B. & C.) Sacc.

Amanita aspera, P.
Muhl. Cat. Pl. Am. Sept. 1 ed. 104. 1813. 2 ed. 107. 1818.
S. Syn. Car. 79 (53) no. 552. 1822.
Sacc. Cub. & Manc. Syll. **5:** 19. *d.* 28 May 1887.
Lloyd, Volvæ 7. *d.* 1898 and Rev. Myc. **21:** 93. July 1899.
McIlvaine & Macadam, Am. Fung. 23. *d.* 1900.
Agaricus asper, Fr.
S. Syn. Am. Bor. 145 no. 10. 1834.
Curtis, M. A., Bot. N. Car. 83. 1867.
Cooke, Handbook 10. *d.* 1871.
Johnson, Bull. Minn. Acad. **1:** 209. 1877 and Rept. Minn. Surv. **5:** 67. 1877.

Bundy, Geol. Wis. 1873–79, **1**: 396. 1883.
Morg. Jour. Myc. **3**: 30. *d.* March 1887.

Amanita aterrima, Raf.
Raf. Précis 49. *d.* 1814.

NOTE. It is impossible to recognize from the original descriptions either this species or *Amanita azurea,* Raf. It may be said, however, that neither of them appears to be an *Amanita* in the modern sense.

Amanita aurantiaca, S.
See ***Amanita cæsarea,*** (Scop.) P.

Amanita azurea, Raf.
Raf. Précis 49. *d.* 1814.

Amanita baccata, Fr.
See ***Amanitopsis baccata,*** (Fr.) Sacc.

Amanita badia, P.
See ***Amanitopsis vaginata,*** (Bull.) Roze.

Amanita bulbosa, P.

NOTE. It is difficult to say with certainty to what species of later writers the *Amanita bulbosa* of Persoon is to be referred but as far as we can ascertain it is considered to be the same as *Amanita Mappa,* (Batsch.) Fr. The *Agaricus bulbosus* of Bulliard as represented by his plates no. 2 and 577 is in part *Amanita phalloides* and in part *Amanita Mappa.*

In Lloyd, Volvæ 21. 1898 *Amanita bulbosa,* Rav. is said to be the same as *Amanita Ravenelii,* B. & C. but we have no note as to where an *Amanita bulbosa,* Rav. was ever printed.

See also the references given under *Amanita phalloides* to *Amanita bulbosa,* Auct. Amer. and note under *Amanita solitaria,* (Bull.) Fr.

Amanita cæsarea, (Scop.) P.
S. Syn. Car. 79 (53) no. 546. 1822.
Hitchcock, Cat. Pl. Amherst 59. 1829.
Hitchcock, Cat. Pl. Mass. 644. 1833. 2 ed. 646 (126). 1835.
Sacc. Cub. & Manc. Syll. **5**: 8. *d.* 28 May 1887.
Banning in Pk. Rept. N.Y. Mus. **44**: 178 (66). Dec. 1891.
*Shear, N. Y. Fungi *1.* 1893.
Taylor, Rept. U. S. Agr. **1892**: 284. *d. pl. 1.* 1893.
Atk. & Schrenk, Jour. Mitch. Soc. **9**: 98 (4). April 1893.
Taylor, Food Products 2: 21. 1893.
Pk. Country Gent. **59**: 566 (42) *f.* 2 Aug. 1894.
Pk. Rept. N. Y. Mus. **47**: 135 (9). Nov. 1894.
Kellerm. & Werner, Geol. Ohio 7^2: 300. Jan. 1895.
Underw. Bull. Ala. Exp. Sta. 73: 341. *d. f. 2.* Oct. 1896.
Webster, Am. Kitchen Mag. **6**: 215. Feb. 1897 and Taylor, Hdbk. Mushrooms 2: 24. 1897.
Pk. Rept. N. Y. Mus. **48**: 253 (155). *pl.* 15. March 1897.
Atk. Bull. Cornell Univ. **3**: 24. 25 June 1897.
Underw. & Earle, Bull. Ala. Exp. Sta. 80: 253. 28 June 1897.
Williams, Asa Gray Bull. **6**: 83. *f.* 13^4. Oct. 1898.
[Underw.] N. Y. Myc. Club 16. 1898.
Lloyd, Volvæ 1, 3. *d.* 13. *d.* 1898 and Rev. Myc. **21**: 91. July 1899.
Farl. Yearb. U. S. Agr. **1897**: 458. 1898. [Bull. 15.]
Henn. in Engler & Prantl, Pflanzenfam. 1^{1**}: 275. *d.* 1898.
Williams, Asa Gray Bull **7**: 78. Aug. 1899.
Child, Jour. Hamilton Assoc. **15**: 105. 1899.
Herbst, Fungal Fl. Lehigh Valley 27. *d.* 1899.
Underw. Moulds 120. 1899.

Atk. Mushrooms 54, 70. *d. pl. 18, f. 72. pl. 19, f. 2.* 20 Oct. 1900.
Williams, Asa Gray Bull. **8**: 103. Oct. 1900.
Hyams, Bull. N. Car. Exp. Sta. 177: 30. Dec. 1900.
Atk. in Bailey's Cycl. Am. Hort. 1044. 1900.
McIlvaine & Macadam, Am. Fung. 12. *d.* 1900.
Perry, Agricultural Student **6**: 179. May 1900 and Ohio Univ. Bull. IV. 30: 8. May 1900.
Trel. Rept. Mo. Hort. Soc. **43**: 236 (13). 1900.
Earle in Mohr, Contr. U. S. Nat. Herb. **6**: 228. 31 July 1901.
Conant, Bull. Boston Myc. Club 19: 5 Feb. 1903.
MacKay, Tr. N. Scot. Inst. **11**: 124. Aug. 1904.

Agaricus cæsareus, Scop.
S. Syn. Am. Bor. 145 no. 3. 1834.
Rav. Charleston Med. Jour. & Rev. **6**: 190. March 1851.
B. & C. Ann. Nat. Hist. III. **4**: 284 (1). *d.* Oct. 1859.
Curtis, M. A., Bot. N. Car. 83. 1867.
Curtis, M. A., Jour. Roy. Hort. Soc. II. **2**: 72, 74. 1870.
Pk. Rept. N. Y. Mus. **23**: 68. *d.* 1872.
Cke. & B. Fungi 88. 1875.
Frost in Cat. Pl. Amherst 62. 1875.
*Rav. Fung. Am. *406.* 1878.
Morg. Jour. Cin. Soc. **6**: 57. *d.* April 1883.
Pk. Rept. N. Y. Mus. **33**: 41. *d.* Oct. 1883.
Rav. S. Car. Resources 354. 1883.
Porcher in Wood's Hdbk. Med. Sci. **3**: 275. *pl. 12, f. 3 & 5.* 1886.
Morg. Jour. Myc. **3**: 26. *d.* March 1887.
Cobb, List Pl. Amherst 31. 1887.
Ell. in Cat. Pl. N. J. 468. 1889.
Eby, Fungi of Lancaster Co. 7. 1894.
Taylor, Hdbk. Mushrooms 5: 5. *d. pl. 14, f. 1–4.* 1898.

Amanita aurantiaca, S. nom. nud.
S. Syn. Car. 79 (53) no. 547. 1822.
Lloyd, Volvæ 21. 1898.

Agaricus prætorius, Fr. p.p.

NOTE. Under this name in the citation below reference is made to an unpublished description by Schweinitz. *Agaricus prætorius*, Fr. however, is an *Amanitopsis* and therefore the *Agaricus prætorius* of Fries's Epicrisis does not belong here. As far as the reference to Schweinitz is concerned it is probable but not certain that it relates to the *Amanita aurantiaca* of S. Syn. Car. 547.

Fr. Epicr. 11. 1836–38.

Amanita calyptrata, Pk.
Pk. Bull. Torr. Bot. Club **27**: 14. *d.* 24 Jan. 1900.
McIlvaine & Macadam, Am. Fung. 26. *d.* 1900.
Sweetser, Bull. Pacific Univ. **1**[4]: 12. *f. c*[4]. May 1901.
Sacc. & Syd. Syll. **16**: 1. *d.* 1 Feb. 1902.

Amanita calyptrata, Pk., var. **albescens**, Pk.
Pk. Rept. N. Y. Mus. **53**: 840. *d. pl. A, f. 1–5.* 19 March 1901.

Amanita candida, Pk.
Pk. Bull. Torr. Bot. Club **24**: 137. *d.* 30 March 1897.
Underw. & Earle, Bull. Ala. Exp. Sta. 80: 253. *d.* 28 June 1897.
Lindau & Syd. Hedw. **37**: Beibl. 7: 1. 9 April 1898.
Lloyd, Volvæ 6. *d.* 14. *d.* 1898 and Rev. Myc. **21**: 93. July 1899.
Sacc. & Syd. Syll. **14**: 63. *d.* 20 Aug. 1899.
Williams, Asa Gray Bull. **7**: 79. Aug. 1899.

Williams, Asa Gray Bull. **8 :** 103. Oct. 1900.
McIlvaine & Macadam, Am. Fung. 20. *d.* 1900.
Earle in Mohr, Contr. U. S. Nat. Herb. **6 :** 228. 31 July 1901.

Amanita Ceciliæ, B. & Br.
See ***Amanitopsis strangulata,*** (Fr.) Roze.

Amanita chlorinosma, Pk.
Pk. in Austin, Bull. Torr. Bot. Club **6 :** 278. *d.* Dec. 1878.
Underw. & Earle, Bull. Ala. Exp. Sta. 80 : 254. 28 June 1897.
Lloyd, Volvæ 7. *d.* 15. *d.* 1898 and Rev. Myc. **21 :** 93. July 1899.
Williams, Asa Gray Bull. **7 :** 79. Aug. 1899.
Williams, Asa Gray Bull. **8 :** 103. Oct. 1900.
McIlvaine & Macadam, Am. Fung. 25. *d. pl. 8, f. 1.* 1900.
Earle in Mohr, Contr. U. S. Nat. Herb. **6 :** 228. 31 July 1901.
Agaricus chlorinosmus, Pk.
Pk. in Austin, Bull. Torr. Bot. Club **6 :** 278. *d.* Dec. 1878.
Austin, Bull. Torr. Bot. Club **6 :** 298. March 1879.
Pk. Bot. Gaz. **4 :** 137. *d.* March 1879.
Ell. in Cat. Pl. N. J. 468. 1889.
Tricholoma chlorinosmum, Sacc. Syll.
Sacc. Cub. & Manc. Syll. **5 :** 101. *d.* 28 May 1887.

Amanita circinata, Schum.
See ***Amanita rubescens,*** P., var. ***circinata,*** P.

Amanita citrina, S. Syn. Car. 544.
See ***Amanita phalloides,*** Fr.

Amanita cothurnata, Atk.
Atk. Mushrooms 66. *d. pl. 17, f. 68, f. 69, 70.* 20 Oct. 1900 and Rhodora **3 :** 40. 1 Feb. 1901.

Amanita crenulata, Pk.
Pk. Bull. Torr. Bot. Club **27 :** 15. *d.* 24 Jan. 1900.
McIlvaine & Macadam, Am. Fung. 27. *d.* 1900.
Sacc. & Syd. Syll. **16 :** 2. *d.* 1 Feb. 1902.
White, Bull. Torr. Bot. Club **29 :** 562. 26 Sept. 1902.
Conant, Bull. Boston Myc. Club 19 : 5 Feb. 1903.

Amanita daucipes, B. & Mont.
See ***Amanitopsis daucipes,*** (B. & Mont.) Sacc. Syll.

Amanita excelsa, Fr.
Sacc. Cub. & Manc. Syll. **5 :** 14. *d.* 28 May 1887.
Lloyd, Volvæ 6. *d.* 13. 1898 and Rev. Myc. **21 :** 92. July 1899.
McIlvaine & Macadam, Am. Fung. 17. *d.* 1900.
Agaricus excelsus, Fr.
S. Syn. Am. Bor. 145 no. 7. 1834.
Rav. Charleston Med. Jour. & Rev. **6 :** 190. March 1851.
Andrews, Proc. Boston Soc. **5 :** 322. April 1856.
Curtis, M. A., Bot. N. Car. 83. 1867.
Cooke, Handbook 8. *d.* 1871.
Frost in Cat. Pl. Amherst 62. 1875.
Johnson, Bull. Minn. Acad. **1 :** 209. 1877 and Rept. Minn. Surv. **5 :** 67. 1877.
Hark. & Moore, Cat. Pac. Fung. 2. Feb. 1880.
Morg. Jour. Myc. **3 :** 28. *d.* March 1887.
Cobb, List Pl. Amherst 31. 1887.
Bennett, Cat. Pl. R. I. 76. 1888.
Eby, Fungi of Lancaster Co. 7. 1894.

Amanita farinosa, S.
See ***Amanitopsis farinosa,*** (S.) Atk.

Amanita flavoconia, Atk.

NOTE. It is possible that some of the earlier notices given under *Amanita Frostiana,* Pk. may refer to this species.

Atk. Jour. Myc. **8**: 110. *d.* 14 Oct. 1902.
Hay, Bull. Nat. Hist. Soc. N. B. **5**: 114. 1903.
Pk. Rept. N. Y. Mus. **56**[4]: 21. *d.* May 1903. [Bull. 67.]
Sacc. Syll. **17**: 1. *d.* 25 May 1905.

Amanita flavorubens, Mont.

Mont. Syll. Crypt. 96. *d.* 1856.
Sacc. Cub. & Manc. Syll. **5**: 17. *d.* 28 May 1887.
Kellerm. & Werner, Geol. Ohio **7**[2]: 300. Jan. 1895.
Millsp. & Nutt. Publ. Field Columb. Mus. Bot. **1**: 157. Jan. 1890.
Henn. in Engler & Prantl, Pflanzenfam. **1**[1]**: 275. 1898.
Lloyd, Volvæ 7. *d.* 15. *d.* 1898 and Rev. Myc. **21**: 93. July 1899.
Agaricus flavorubens, B. & Mont.
Mont. Syll. Crypt. 96. *d.* 1856.

Amanita flavorubescens, Atk.

Atk. Jour. Myc. **8**: 111. *d.* 14 Oct. 1902.
Sacc. Syll. **17**: 1. *d.* 25 May 1905.

Amanita floccocephala, Atk.

Atk. Mushrooms 62. *d. f. 63.* 20 Oct. 1900 and Rhodora **3**: 40. 1 Feb. 1901.
White, Bull. Torr. Bot. Club **29**: 562. 26 Sept. 1902.

Amanita formosa, Gonn. & Rabh.

See ***Amanita muscaria,*** (L.) P., var. ***formosa,*** P.

Amanita Frostiana, Pk.

NOTE. See note under *Amanita flavoconia,* Atk.

Pk. Rept. N. Y. Mus. **33**: 18, 44. *d.* Oct. 1883.
Sacc. Cub. & Manc. Syll. **5**: 14. *d.* 28 May 1887.
Underw. & Earle, Bull. Ala. Exp. Sta. 80: 254. 28 June 1897.
Williams, Asa Gray Bull. **6**: 83. Oct. 1898.
Henn. in Engler & Prantl, Pflanzenfam. **1**[1]**: 275. 1898.
Lloyd, Volvæ 5. *d.* 13. *d.* 1898 and Rev. Myc. **21**: 92. July 1899.
Taylor, Hdbk. Mushrooms 5: 10. 1898.
Pk. Bull. N. Y. Mus. **6**: 191. July 1899.
Williams, Asa Gray Bull. **7**: 78. Aug. 1899.
Underw. Moulds 120. 1899.
Atk. Mushrooms 54. *d.* 20 Oct. 1900.
Williams, Asa Gray Bull. **8**: 103. Oct. 1900.
McIlvaine & Macadam, Am. Fung. 16. *d. pl. 6, f. 5.* 1900 and Am. Kitchen Mag. **14**: 122. Dec. 1900.
Atk. in Bailey's Cycl. Am. Hort. 1044. *d.* 1900.
Earle in Mohr, Contr. U. S. Nat. Herb. **6**: 229. 31 July 1901.
Brown & Fernekes, Bull. Wis. Nat. Hist. Soc. II. **2**: 46. Jan. 1902.
Ricker, Univ. of Maine Studies 3: 55. 30 April 1902.
White, Bull. Torr. Bot. Club **29**: 562. 26 Sept. 1902.
Longyear, Rept. Mich. Acad. **3**: 55. 1902.
Conant, Bull. Boston Myc. Club 19: 5 Feb. 1903.
Hay, Bull. N. H. Soc. N. B. **5**: 114. 1903.
Longyear, Rept. Mich. Acad. **4**: 115. 1904.
Agaricus affinis, Frost, nom. nud.
Frost in Cat. Pl. Amherst 62. 1875.
Cobb, List Pl. Amherst 31. 1887.
Amanita affinis, Frost, nom. nud.
Frost in Cat. Pl. Amherst 62. 1875.
Lloyd, Volvæ 21. 1898.

Agaricus muscarius, var. ***minor,*** Pk.
Pk. Rept. N. Y. Mus. **23**: 69. *d.* 1872.
Bundy, Geol. Wis. 1873–79, **1**: 396. 1883.
Amanita muscaria, var. ***minor,*** Pk.
Pk. Rept. N. Y. Mus. **23**: 69. *d.* 1872.
Lloyd, Volvæ 21. 1898.
Agaricus Frostianus, Pk.
Pk. Rept. N. Y. Mus. **33**: 18, 44. *d.* Oct. 1883.
Morg. Jour. Myc. **3**: 28. *d.* March 1887.

Amanita Frostiana, Pk., var. **pallidipes,** Pk.
Pk. Rept. N. Y. Mus. **53**: 855. *d.* 19 March 1901.
Sacc. & Syd. Syll. **16**: 1110. 1 Feb. 1902.
Sacc. Syll. **17**: 2. *d.* 25 May 1905.

Amanita hyperborea, Karst.
See ***Amanitopsis hyperborea,*** Karst.

Amanita incarnata, P.
See ***Volvaria bombycina,*** (Schæff.) Fr.

Amanita lenticularis, Fr.
See ***Lepiota lenticularis,*** (Lasch) Gillet.

Amanita livida, P.
See ***Amanitopsis vaginata,*** (Bull.) Roze, var. ***livida,*** (P.) Pk.

Amanita magnivelaris, Pk.
Pk. Rept. N. Y. Mus. **50**: 96. *d.* 28 March 1898.
Lloyd, Volvæ 4. *d.* 13. *d.* 1898 and Rev. Myc. **21**: 92. July 1899.
Sacc. & Syd. Syll. **14**: 64. *d.* 20 Aug. 1899.
McIlvaine & Macadam, Am. Fung. 10. *d.* 1900.

Amanita Mappa, (Batsch) Fr.
Lloyd, Volvæ 4. *d.* 13. 1898 and Rev. Myc. **21**: 92. July 1899.
Williams, Asa Gray Bull. **8**: 104. Oct. 1900.
McIlvaine & Macadam, Am. Fung. 10. *d.* 1900.
White, Bull. Torr. Bot. Club **29**: 562. 26 Sept. 1902.
Hay, Bull. Nat. Hist. Soc. N. B. **5**: 114. 1903.
Schaffner, Ohio Nat. **4**: 17. Nov. 1903.
Agaricus Mappa, Batsch.
Curtis, M. A., Bot. N. Car. 83. 1867.
Pk. Rept. N. Y. Mus. **22**: 76. 1869.
Frost in Cat. Pl. Amherst 62. 1875.
Johnson, Bull. Minn. Acad. **1**: 209. 1877 and Rept. Minn. Surv. **5**: 67. 1877.
Palmer, Mushrooms *pl. 10, f. 4.* 1885.
Morg. Jour. Myc. **3**: 27. *d.* March 1887.
Cobb, List Pl. Amherst 31. 1887.
Eby, Fungi of Lancaster Co. 7. 1894.
Taylor, Hdbk. Mushrooms 5: 11. *d. pl. 15, f. 9.* 1898.

Amanita monticulosa, B. & C.
B. & C. Ann. Nat. Hist. II. **12**: 418 (2). *d.* Dec. 1853.
Sacc. Cub. & Manc. Syll. **5**: 18. *d.* 28 May 1887.
Lloyd, Volvæ 7. *d.* 14. *d.* 1898 and Rev. Myc. **21**: 93. July 1899.
Henn. in Engler & Prantl, Pflanzenfam. 1^{1}**: 275. 1898.
Williams, Asa Gray Bull. **8**: 103. Oct. 1900.
McIlvaine & Macadam, Am. Fung. 25. *d.* 1900.
Ricker, Univ. of Maine Studies 3: 55. 30 April 1902.
Agaricus monticulosus, B. & C.
B. & C. Ann. Nat. Hist. II. **12**: 418 (2). *d.* Dec. 1853.
Curtis, M. A., Bot. N. Car. 83. 1867.
Morg. Jour. Myc. **3**: 30. *d.* March 1887.

Amanita multisquamosa, Pk.
Pk. Rept. N. Y. Mus. **53**: 840. *d. pl. B, f. 1–7.* 19 March 1901.
Sacc. & Syd. Syll. **16**: 1110. 1 Feb. 1902.
Sacc. Syll. **17**: 2. *d.* 25 May 1905.

Amanita muscaria, (L.) P.
Grev. Scot. Crypt. Fl. **1**: *pl. 54.* 1823.
Porcher, Tr. Am. Med. Assoc. **2**: 854. 1849.
Sacc. Cub. & Manc. Syll. **5**: 13. *d.* 28 May 1887.
Banning in Pk. Rept. N. Y. Mus. **44**: 177 (65). Dec. 1891.
Rostr. Meddelelser om Groenl. **3**: 596. 1891.
Millsp. Bull. W. Va. Exp. Sta. 24: 502. June 1892.
Atk. & Schrenk, Jour. Mitch. Soc. **9**: 98 (4). April 1893.
*Shear, N. Y. Fungi *101.* 1893.
Taylor, Rept. U. S. Agr. **1892**: 284. *d. pl. 2.* 1893.
Pk. Country Gent. **59**: 566 (43). 2 Aug. 1894.
Underw. Proc. Ind. Acad. **1893**: 61. Aug. 1894.
Kellerm. & Werner, Geol. Ohio 7^2: 300. Jan. 1895.
Graves, Asa Gray Bull. **3**: 44. 1 Oct. 1895.
Gibson, Mushrooms 287. *pl. 37.* 1895.
Pound, Clements and others, Bot. Surv. Nebr. 4: 43. 20 Jan. 1896.
Millsp. & Nutt. Publ. Field Columb. Mus. Bot. **1**: 156. Jan. 1896.
Underw. Bull. Ala. Exp. Sta. 73: 344. *f. 3.* Oct. 1896.
Bates, Tr. Mass. Hort. Soc. **1896**: 173. *d.* 1896.
Webster, Am. Kitchen Mag. **6**: 215. Feb. 1897.
Pk. Rept. N. Y. Mus. **48**: 310 (212). *pl. 42.* March 1897.
Underw. & Earle, Bull. Ala. Exp. Sta. 80: 254. 28 June 1897.
Coville, Circ. U. S. Agr. 13: 15. *f. 14–20.* 1 Dec. 1897. [2 ed. *f. 18–24.*]
Farl. Gard. & Forest **10**: 469. 1 Dec. 1897.
Chesnut, Yearb. U. S. Agr. **1896**: 144. 1897.
Taylor, Hdbk. Mushrooms 3: 2. *pl. E, f. 2.* 1897.
Williams, Asa Gray Bull. **6**: 82. *pl. 1, f. 3.* Oct. 1898.
Chesnut, Bull. U. S. Agr. Div. Bot. 20: 12. *f. 1.* 1898 and Farmer's Bull. U. S. Agr. 86: 4. *f. 1.* 1898.
Farl. Yearb. U. S. Agr. **1897**: 457. *d. pl. 22.* 1898. [Bull. 15.]
Henn. in Engler & Prantl, Pflanzenfam. 1^{1**}: 275. *d.* 1898.
Lloyd, Volvæ 5. *d.* 13. 1898 and Rev. Myc. **21**: 92. July 1899.
Taylor, Hdbk. Mushrooms 5: 6. 1898.
Halsted, Bull. N. J. Exp. Sta. 135: 12. *f. 6.* 8 Feb. 1899.
Pk. Bull. N. Y. Mus. **6**: 191. July 1899.
Williams, Asa Gray Bull. **7**: 78. Aug. 1899.
Chesnut, Rept. Bureau of Animal Industry **15**: 393. *f. 38.* 1899.
Child, Jour. Hamilton Assoc. **15**: 105. 1899.
Herbst, Fungal Fl. Lehigh Valley 23. *d. pl.* 1899.
Jelliffe, Flora of Long Island 42. 1899.
Longyear, Rept. Mich. Agr. **1898**: 92. 1899.
Underw. Moulds 119. 1899.
Atk. Mushrooms 52. *d. pl. 12, f. 52. pl. 13, f. 53, 54.* 249. 20 Oct. 1900. 295, 297. April 1902. [2 ed.]
Williams, Asa Gray Bull. **8**: 103. Oct. 1900.
Atk. in Bailey's Cycl. Am. Hort. 1044. *d.* 1900.
McIlvaine & Macadam, Am. Fung. 14. *d. pl. 6, f. 4. pl. 9.* 623. 1900.
Perry, Agricultural Student **6**: 179. May 1900 and Ohio Univ. Bull. IV. 30: 8. May 1900.
Trel. Rept. Mo. Hort. Soc. **43**: 236 (13). 1900.
Henderson, Bull. Idaho Exp. Sta. 27: 53. *pl. 12.* March 1901.
Carter, Am. Jour. Physiol. **5**: 158, 168. 1 April 1901.
Sweetser, Bull. Pacific Univ. 1^4: 12. May 1901.
Earle in Mohr, Contr. U. S. Nat. Herb. **6**: 229. 31 July 1901.

Hay, Bull. Nat. Hist. Soc. N. B. **4**: 342. 1901 and **5**: 119. 1903.
Ricker, Univ. of Maine Studies 3: 55. 30 April 1902.
White, Bull. Torr. Bot. Club. **29**: 562. 26 Sept. 1902.
Chesnut, Contr. U. S. Nat. Herb. **7**: 302. *f. 67.* 1902.
Conant, Bull. Boston Myc. Club 19: 5 Feb. 1903.
Woodworth, Birds & Nature **14**: 95. *pl. 592.* Sept. 1903.
Schaffner, Ohio Nat. **4**: 17. Nov. 1903.
Gibson, Mushrooms 51, 53. *pl. 4, d. 58. f., 73, 287. pl. 37.* 1903. [2 ed.]
Kellerm. Myc. Bull. **2**: 53. *f. 51, 52.* 26 March 1904.
Longyear, Rept. Mich. Acad. **4**: 115. 1904.
MacKay, Tr. N. Scot. Inst. **11**: 124. Aug. 1904.

Agaricus muscarius, L.

S. Syn. Am. Bor. 145 no. 4. 1834.
Rav. Charleston Med. Jour. & Rev. **6**: 190. March 1851.
Andrews, Proc. Boston Soc. **5**: 322. April 1856.
Sprague, Proc. Boston Soc. **6**: 316. 1859.
Curtis, M. A., Bot. N. Car. 83. 1867.
Cooke, Handbook 8. *pl. 2, f. 1. d.* 1871.
Winder, Mushrooms of Canada 20. 1871.
Pk. Rept. N. Y. Mus. **23**: 68. *d.* 1872.
Pk. Rept. N. Y. Mus. **24**: 102. 1872.
Frost in Cat. Pl. Amherst 62. 1875.
Farl. Bull. Bussey Inst. **1**: 436. March 1876.
Pk. Tr. Albany Inst. **8**: 163. 1876.
Johnson, Bull. Minn. Acad. **1**: 209. 1877 and Rept. Minn. Surv. **5**: 67. 1877.
Fowler, Rept. Agr. N. B. **1878**: Append. B: 63. 1879.
Banning, Bot. Gaz. **5**: 6. *d.* Jan. 1880.
Somers, Tr. N. Scot. Inst. **5**: 189. 1882.
Morg. Jour. Cin. Soc. **6**: 58. *d.* April 1883.
Pk. Rept. N. Y. Mus. **33**: 43. *d.* 44. Oct. 1883.
Rav. S. Car. Resources 354. 1883.
Bessey, Bull. Iowa Agr. Coll. **1884**: 146. Jan. 1885.
Palmer, Mushrooms *pl. 10, f. 1.* 1885.
Morg. Jour. Myc. **3**: 28. *d.* March 1887.
Calkins, Jour. Myc. **3**: 58. May 1887.
Arth. & Holw. Bull. Minn. Surv. **3**: 26. 1 Oct. 1887.
Cobb, List Pl. Amherst 31. 1887.
Bennett, Cat. Pl. R. I. 76. 1888.
Ell. in Cat. Pl. N. J. 468. 1889.
Taylor, Rept. U. S. Agr. **1890**: 373 (7). *pl. 2, f. 8.* 1890 [reprint 1893].
McIlvaine, Therapeutic Gaz. **17**: 296 (2). 15 May 1893.
Eby, Fungi of Lancaster Co. 7. 1894.
Sturgis, Rept. Conn. Agr. **1895**: 76, 77 (6). *pl. 1, f. 1.* Jan. 1896.
Taylor, Hdbk. Mushrooms 5: 9. *d. pl. 15, f. 1–7.* 1898.
Fowler, Proc. Miramichi Nat. Hist. 2: 28. 1901.

Amanita muscaria, (L.) P., var. **alba,** Pk.

Pk. Rept. N. Y. Mus. **46**: 133 (53). *d.* Dec. 1893.
*Shear, N. Y. Fungi *3.* 1893.
Millsp. & Nutt. Publ. Field Columb. Mus. Bot. **1**: 157. *d.* Jan. 1896.

Agaricus muscarius, L., var. ***albus,*** Pk.

Pk. Rept. N. Y. Mus. **33**: 44. *d.* Oct. 1883.

Amanita muscaria, (L.) P., var. **coccinea,** Beardslee.

Beardslee, Amanitas S. Appalach. 8. *d. pl. 3.* Sept. 1902.

Amanita muscaria, (L.) P., var. **formosa,** P.

Pk. Bull. N. Y. Mus. **6**: 191. July 1899.
McIlvaine & Macadam, Am. Fung. 14. *d.* 1900.

White, Bull. Torr. Bot. Club **29**: 562. 26 Sept. 1902.
Pk. Rept. N. Y. Mus. **55**: 961. *d.* Nov. 1902. [Bull. 54.]
Hay, Bull. Nat. Hist. Soc. N. B. **5**: 114. 1903.
Pk. Rept. N. Y. Mus. **57**: 22. *d.* July 1904. [Bull. 75.]
Agaricus muscarius, L., var. ***formosus,*** Fr.
Pk. Rept. N. Y. Mus. **33**: 44. *d.* Oct. 1883.
Macbr. Bull. Univ. Iowa **1**: 35. *d.* Nov. 1888.
Amanita formosa, Gonn. & Rabh.
Lloyd, Volvæ 21. 1898.

Amanita muscaria, var. **major,** Pk.
See ***Amanita strobiliformis,*** (Vitt.) Fr.

Amanita muscaria, var. **minor,** Pk.
See ***Amanita Frostiana,*** Pk.

Amanita muscaria, (L.) P., var. **Puella,** P.
S. Syn. Car. 79 (53) no. 548. 1822.
Atk. Mushrooms 55. 20 Oct. 1900.

Amanita muscaria, (L.) P., var. **regalis,** Fr.
McIlvaine & Macadam, Am. Fung. 14. *d.* 1900.
Agaricus muscarius, var. ***regalis,*** Fr.
Pk. Rept. N. Y. Mus. **33**: 44. Oct. 1883.

Amanita muscaria, var. **umbrina,** (P.) Sacc. Syll.
McIlvaine & Macadam, Am. Fung. 14. *d.* 1900.
Agaricus muscarius, var. ***umbrinus,*** Pk.
Pk. Rept. N. Y. Mus. **33**: 44. *d.* Oct. 1883.

Amanita nitida, Fr.
Pk. Rept. N. Y. Mus. **43**: 62 (16). Nov. 1890.
Banning in Pk. Rept. N. Y. Mus. **44**: 177 (65). Dec. 1891.
Lloyd, Volvæ 7. *d.* 1898 and Rev. Myc. **21**: 93. July 1899.
McIlvaine & Macadam, Am. Fung. 24. *d.* 1900.
Agaricus nitidus, Fr.
Banning, Bot. Gaz. **5**: 6. *d.* Jan. 1880.
Hark. & Moore, Cat. Pac. Fung. 2. Feb. 1880.
Morg. Jour. Myc. **3**: 30. *d.* March 1887.

Amanita nivalis, Grev.
See ***Amanitopsis vaginata*** (Bull.) Roze, var. ***alba,*** Sacc. Syll.

Amanita nivalis, Pk.
See ***Amanitopsis albocreata,*** Atk.

Amanita onusta, Howe.
Howe Bull. Torr. Bot. Club **5**: 42 *d.* Oct. 1874.
Sacc. Syll. **9**: 1. *d.* 15 Sept. 1891.
Lloyd, Volvæ 9, 16. *d.* 21. 1898.
Pk. Rept. N. Y. Mus. **53**: 839. *d.* 19 March 1901.
Agaricus onustus, Howe.
Howe, Bull. Torr. Bot. Club **5**: 42. *d.* Oct. 1874.
Pk. Rept. N. Y. Mus. **33**: 49. Oct. 1883.
Morg. Jour. Myc. **3**: 32. *d.* March 1887.

Amanita pantherina, (D C.) Fr.
Sacc. Cub. & Manc. Syll. **5**: 14. *d.* 28 May 1887.
Pk. Bull. N. Y. Mus. **1**[2]: 25. Jan. 1888.
Fairman, Proc. Rochester Acad. **2**: 154. Feb. 1893.
Atk. & Schrenk, Jour. Mitch. Soc. **9**: 98 (4). April 1893.
Underw. Proc. Ind. Acad. **1893**: 61. Aug. 1894.
Kellerm. & Werner, Geol. Ohio, **7**[2]: 300. Jan. 1895.
Atk. Bull. Cornell Univ. **3**: 24. 25 June 1897.
Williams, Asa Gray Bull. **6**: 83. *pl. 1, f. 2.* Oct. 1898.

Lloyd, Volvæ 4. *d.* 13. 1898 and Rev. Myc. **21**: 92. July 1899.
Williams, Asa Gray Bull. **7**: 78. Aug. 1899.
Herbst, Fungal Fl. Lehigh Valley 28. *d.* 1899.
Atk. Mushrooms 69, 249. 20 Oct. 1900. 295. April 1902. [2 ed.]
Williams, Asa Gray Bull. **8**: 103. Oct. 1900.
McIlvaine & Macadam, Am. Fung. 17. *d.* 1900.
Sweetser, Bull. Pacific Univ. **1**[4]: 12. May 1901.
Earle in Mohr, Contr. U. S. Nat. Herb. **6**: 229. 31 July 1901.

Amanita umbrina, P.
Muhl. Cat. Pl. Am. Sept. 1 ed. 104. 1813. 2 ed. 107. 1818.
S. Syn. Car. 79 (53) no. 549. 1822.
Lloyd, Volvæ 21. 1898.
Henn. in Engler & Prantl, Pflanzenfam. **1**[1**]: 275. *d.* 1898.
Perry, Agricultural Student **6**: 179. May 1900 and Ohio Univ. Bull. IV. 30: 8. May 1900.
Schaffner, Ohio Nat. **4**: 18. Nov. 1903.

Agaricus pantherinus, D C.
S. Syn. Am. Bor. 145 no. 5. 1834.
Lea, Cat. Pl. Cin. 48. 1849.
Curtis, M. A., Bot. N. Car. 83. 1867.
Cke. Handbook 9. *d.* 1871.
Johnson, Bull. Minn. Acad. **1**: 209. 1877 and Rept. Minn. Surv. **5**: 67. 1877.
James, Jour. Cin. Soc. **2**: 63 (22). April 1879.
Hark. & Moore, Cat. Pac. Fung. 2. Feb. 1880.
Bundy, Geol. Wis. 1873–79, **1**: 396. 1883.
Morg. Jour. Cin. Soc. **6**: 58. *d.* April 1883.
Morg. Jour. Myc. **3**: 28. *d.* March 1887.
Macbr. Bull. Univ. Iowa **1**: 182. June 1890.

Amanita pellucidula, Banning.
Banning in Pk. Rept. N. Y. Mus. **44**: 178 (66). *d.* Dec. 1891.

Amanita phalloides, Fr.

NOTE. By some writers *Amanita verna* is considered to be distinct from *A. phalloides* but by others a variety of that species. It is not certain that all the references to *A. verna* given below relate to the European form and they are here placed under *A. phalloides* as they should be consulted in connection with that species.

Sacc. Cub. & Manc. Syll. **5**: 9. *d.* 28 May 1887.
Banning in Pk. Rept. N. Y. Mus. **44**: 177 (65). Dec. 1891.
Fairman, Proc. Rochester Acad. **2**: 154. Feb. 1893.
Atk. & Schrenk, Jour. Mitch. Soc. **9**: 98 (4). April 1893.
*Shear, N. Y. Fungi 2. 1893.
Underw. Proc. Ind. Acad. **1893**: 61. Aug. 1894.
Pk. Rept. N. Y. Mus. **47**: 135 (9), 137 (11). Nov. 1894.
McClatchie in Reid's Hist. Pasadena 619. 1895.
Pk. Rept. N. Y. Mus. **48**: 313 (215). *pl. 40, 41, f. 1–3.* March 1897.
McClatchie, Proc. S. Cal. Acad. **1**: 385. 5 June 1897.
Atk. Bull. Cornell Univ. **3**: 24. 25 June 1897.
Underw. & Earle, Bull. Ala. Exp. Sta. 80: 255. 28 June 1897.
Atk. Bull. Cornell Exp. Sta. 138: 358–362. (24–28) *d. f. 106–109.* Sept. 1897.
Coville, Circ. U. S. Agr. Div. Bot. 13: 20. *f. 21.* 1 Dec. 1897. [2 ed. 21. *f. 25–27.*]
Chesnut, Yearb. U. S. Agr. **1896**: 144. *d. f. 28.* 1897.
Jones, H. L., Oberlin College Lab. Bull. 9: 4. 15 June 1898.
Williams, Asa Gray Bull. **6**: 81. *pl. 1, f. 1.* Oct. 1898.
Chesnut, Bull. U. S. Agr. Div. Bot. 20: 14. *f. 2.* 1898.

Chesnut, Farmers' Bull. U. S. Agr. 86: 6. *f.* 2. 1898.
Farl. Yearb. U. S. Agr. **1897**: 458. *d. pl.* 23. 1898. [Bull. 15.]
Henn. in Engler & Prantl, Pflanzenfam. **1**^{1**}: 275. *d. f.* 125 *B.* 1898.
Lloyd, Volvæ 3. *d. f.* 3. 13. 1898 and Rev. Myc. **21**: 92. July 1899.
Halsted, Bull. Torr. Bot. Club **26**: 16. 16 Jan. 1899.
Williams, Asa Gray Bull. **7**: 17. Feb. 1899.
Halsted, Bull. N. J. Exp. Sta. 135: 13. *f.* 7. 8 Feb. 1899.
Pk. Bull. N. Y. Mus. **6**: 191. July 1899.
Sterling, Toadstools. Aug. 1899.
Williams, Asa Gray Bull. **7**: 78. Aug. 1899.
Child, Jour. Hamilton Assoc. **15**: 105. 1899.
Herbst, Fungal Fl. Lehigh Valley 27. *d.* 1899.
Underw. Moulds 110, 119, 235. *pl.* 8, *f.* 1, 2. 1899.
Chesnut, Plant World **3**: 8. Jan. 1900.
Atk. Mushrooms 3, 14, 55. *d. f.* 55. *pl.* 14, *f.* 56. *f.* 57, 58. 249, 251. 20 Oct. 1900. 295, 297. April 1902. [2 ed.]
Williams, Asa Gray Bull. **8**: 100. 103. Oct. 1900.
Atk. in Bailey's Cycl. Am. Hort. 1044. *d. f.* 1443. 1900.
McIlvaine & Macadam, Am. Fung. 7. *d. pl.* 6, *f.* 2, 3. 629. 1900.
Trel. Rept. Mo. Hort. Soc. **43**: 224 (1) *f.* 236 (13). 1900.
Henderson, Bull. Idaho Exp. Sta. 27: 30. *f.* March 1901.
Carter, Am. Jour. Physiol. **5**: 163, 171, 173. 1 April 1901.
Earle in Mohr, Contr. U. S. Nat. Herb. **6**: 229. 31 July 1901.
Garman, Bull. Ky. Exp. Sta. 96: *f.* 5. Nov. 1901.
Williamson, Proc. Ind. Acad. **1900**: 163. 1901.
Brown & Fernekes, Bull. Wis. Nat. Hist. Soc. II. **2**: 46. Jan. 1902.
Ricker, Univ. of Maine Studies 3: 55. 30 April 1902.
White, Bull. Torr. Bot. Club **29**: 562. 26 Sept. 1902.
Conant, Bull. Boston Myc. Club 19: 5 Feb. 1903.
Schaffner, Ohio Nat. **4**: 17. Nov. 1903.
Gibson, Mushrooms 73. *f.* 1903. [2 ed.]
Hay, Bull. Nat. Hist. Soc. N. B. **5**: 111, 114. 1903.
Kellerm. Myc. Bull. **2**: 56. *f.* 53. 26 March 1904.
Trel. Rept. Mo. Bot. Gard. **15**: 84. 30 April 1904.
Longyear, Rept. Mich. Acad. **4**: 115. 1904.
MacKay, Tr. N. Scot. Inst. **11**: 124. Aug. 1904.

Amanita bulbosa, Auct. Amer.

S. Syn. Car. 79 (53) no. 543. 1822.
McIlvaine, Therapeutic Gaz. **17**: 297 (4). 15 May 1893.
Lloyd, Volvæ 21. 1898.
Carter, Am. Jour. Physiol. **5**: 161, 170, 172, 174. 1 April 1901.

Agaricus phalloides, Fr.

S. Syn. Am. Bor. 145 no. 1. 1834.
Sprague, Proc. Boston Soc. **6**: 316. 1859.
Curtis, M. A., Bot. N. Car. 83. 1867.
Cke. Handbook 7. *d.* 1871.
Winder, Mushrooms of Canada 20. 1871.
Pk. Rept. N. Y. Mus. **23**: 69. 1872.
Frost in Cat. Pl. Amherst 62. 1875.
Johnson, Bull. Minn. Acad. **1**: 209. 1877 and Rept. Minn. Surv. **5**: 67. 1877.
Hark. & Moore, Cat. Pac. Fung. 2. Feb. 1880.
Pk. Rept. N. Y. Mus. **33**: 42. *d.* Oct. 1883.
Bundy, Geol. Wis. 1873–79, **1**: 396. 1883.
Pk. in Day's Cat., Bull. Buf. Soc. **4**: 174 (110). 1883.
Palmer, Mushrooms *pl.* 10, *f.* 2, 3. 1885.
Morg. Jour. Myc. **3**: 27. *d.* March 1887.
Cobb, List Pl. Amherst 31. 1887.

Macbr. Bull. Univ. Iowa **1**: 36. *d.* Nov. 1888.
Bennett, Cat. Pl. R. I. 76. 1888.
Somers, Tr. N. Scot. Inst. **7**: 464. 1890.
Eby, Fungi of Lancaster Co. 7. 1894.
Sturgis, Rept. Conn. Agr. **1895**: 76, 77 (6). Jan. 1896.
Taylor, Hdbk. Mushrooms 5: 10. *d. pl. 15, f. 8.* 1898.

Amanita citrina, S. Syn. Car. 544.
Muhl. Cat. Pl. Am. Sept. 1 ed. 104. 1813. 2 ed. 107. 1818.
S. Syn. Car. 79 (53) no. 544. 1822.
Lloyd, Volvæ 21. 1898.

Amanita viridis, var. ***fuliginea,*** S. Syn. Car. 545.
S. Syn. Car. 79 (53) no. 545. 1822.
Lloyd, Volvæ 21. 1898.

Agaricus vernus, Auct. Amer.
Curtis, M. A., Bot. N. Car. 83. 1867.
Winder, Mushrooms of Canada 20. 1871.
Pk. Rept. N. Y. Mus. **23**: 69. *d.* 1872.
Frost in Cat. Pl. Amherst 62. 1875.
Johnson, Bull. Minn. Acad. **1**: 209. 1877 and Rept. Minn. Surv. **5**: 67. 1877.
Hark. & Moore, Cat. Pac. Fung. 2. Feb. 1880.
Morg. Jour. Cin. Soc. **6**: 57. *d.* April 1883.
Bundy, Geol. Wis. 1873–79, **1**: 396. 1883.
Palmer, Mushrooms *pl. 9. d.* 1885.
Cobb, List Pl. Amherst 31. 1887.
Macbr. Bull. Univ. Iowa **1**: 36. Nov. 1888.
Ell. in Cat. Pl. N. J. 468. 1889.
Somers, Tr. N. Scot. Inst. **7**: 464. *d.* 1890.
Taylor, Rept. U. S. Agr. **1890**: 372 (7). *pl. 2, f. 6.* 1890. [reprint 1893.]
Eby, Fungi of Lancaster Co. 7. 1894.
Taylor, Hdbk. Mushrooms 5: 11. *d. pl. 16, f. 1–4.* 1898.

Amanita verna, Auct. Amer.
Banning in Pk. Rept. N. Y. Mus. **44**: 177 (65). Dec. 1891.
Atk. & Schrenk, Jour. Mitch. Soc. **9**: 98 (4). April 1893.
McIlvaine, Therapeutic Gaz. **17**: 297 (4). 15 May 1893.
Pk. Country Gent. **59**: 582 (48). *d.* 9 Aug. 1894.
Kellerm. & Werner, Geol. Ohio 7^2: 300. Jan. 1895.
Graves, Asa Gray Bull. **3**: 44. 1 Oct. 1895.
Millsp. & Nutt. Publ. Field Columb. Mus. Bot. **1**: 156. Jan. 1896.
Bates, Tr. Mass. Hort. Soc. **1896**: 172, 173. *d.* 1896.
Pk. Rept. N. Y. Mus. **48**: 313 (215). *pl. 41, f. 4–7.* March 1897.
Taylor, Hdbk. Mushrooms 4: 15. 1897.
Halsted, Bull. N. J. Exp. Sta. 135: 14. 8 Feb. 1899.
Jelliffe, Flora of Long Island 42. 1899.
Longyear, Rept. Mich. Bd. Agr. **1898**: 92. 1899.
Underw. Moulds 119. 1899.
Atk. Mushrooms 60. *d. f. 59–61.* 20 Oct. 1900.
Atk. in Bailey's Cycl. Am. Hort. 1044. *d.* 1900.
McIlvaine & Macadam, Am. Fung. 9. *d.* 627. 1900.
Perry, Agricultural Student **6**: 179. May 1900 and Ohio Univ. Bull. IV. 30: 8. May 1900.
? Carter, Am. Jour. Physiol. **5**: 161, 172, 174. 1 April 1901.
Brown & Fernekes, Bull. Wis. Nat. Hist. Soc. II. **2**: 46. Jan. 1902.
White, Bull. Torr. Bot. Club. **29**: 562. 26 Sept. 1902.
Schaffner, Ohio Nat. **4**: 18. Nov. 1903.
Gibson, Mushrooms 44, 49. *pl. 3.* 1903. [2 ed.]
Hay, Bull. Nat. Hist. Soc. N. B. **5**: 114. 1903.

Longyear, Rept. Mich. Acad. **4**: 115. 1904.
MacKay, Tr. N. Scot. Inst. **11**: 123. Aug. 1904.
Amanita phalloides, var. ***verna,*** Auct. Amer.
Williams, Asa Gray Bull. **7**: 78. Aug. 1899.

Amanita phalloides, S. Am. Bor. 1 excl. var. bulbosa.
See ***Amanita phalloides,*** Fr.

Amanita phalloides, var. **bulbosus,** S. Am. Bor. 1.
See ***Amanita Mappa,*** (Batsch) Fr.

Amanita phalloides, Fr., var. **striatula,** Pk.
Pk. Rept. N. Y. Mus. **55**: 961. *d.* Nov. 1902. [Bull. **10**: no. 54.]
Sacc. Syll. **17**: 2. *d.* 25 May 1905.

Amanita polypyramis, B. & C.
See ***Amanita solitaria,*** (Bull.) Fr.

Amanita prairiicola, Pk.
Pk. Bull. Torr. Bot. Club **24**: 138. *d.* 30 March 1897.
Lindau & Syd. Hedw. **37**: Beibl. 7: 1. 9 April 1898.
Lloyd, Volvæ 7, 15. *d.* 1898 and Rev. Myc. **21**: 93. July 1899.
Smyth, Tr. Kans. Acad. **16**: 164. July 1899.
McIlvaine & Macadam, Am. Fung. 24. *d.* 1900.
Amanita praticola, Sacc. & Syd.
Sacc. & Syd. Syll. **14**: 63. *d.* 20 Aug. 1899.

Amanita praticola, Sacc. & Syd.
See ***Amanita prairiicola,*** Pk.

Amanita pubescens, S.
See ***Amanitopsis pubescens,*** (S.) Sacc.

Amanita pusilla, Lloyd.
See ***Amanitopsis pusilla,*** Pk.

Amanita pusilla, P.
See ***Volvaria pusilla,*** (P.) Fr.

Amanita pustulata, Schrt.
See ***Amanita rubescens,*** P.

Amanita radicata, Pk.
Pk. Bull. Torr. Bot. Club **27**: 609. *d.* 29 Dec. 1900.
Shear, Plant World **4**: 18. Jan. 1901.
Sacc. & Syd. Syll. **16**: 2. *d.* 1 Feb. 1902.

Amanita Ravenelii, B. & C.

NOTE. There is an *Agaricus* (*Galera*) *Ravenelii*, B. & C. which is not this species and which occurs only as a catalogue name in Curtis, M. A., Bot. N. Car. 89. 1867. It is probably *Galera lateritia*, Fr. or nearly related to it.

B. & C. Ann. Nat. Hist. III. **4**: 284 (1). *d.* Oct. 1859.
Sacc. Cub. & Manc. Syll. **5**: 15. *d.* 28 May 1887.
Sacc. Syll. **9**: 2. 15 Sept. 1891.
Atk. Bull. Cornell Univ. **3**: 24. 25 June 1897.
Henn. in Engler & Prantl, Pflanzenfam. **1**^{1**}: 275. 1898.
Lloyd, Volvæ 6, 14. *d.* 1898 and Rev. Myc. **21**: 93. July 1899.
McIlvaine & Macadam, Am. Fung. 18. *d.* 1900.
Earle in Mohr, Contr. U. S. Nat. Herb. **6**: 229. 31 July 1901.
Agaricus Ravenelii, B. & C.
B. & C. Ann. Nat. Hist. III. **4**: 284 (1). *d.* Oct. 1859.
Morg. Jour. Myc. **3**: 27. *d.* March 1887.

Amanita recutita, Fr.
Atk. & Schrenk, Jour. Mitch. Soc. **9**: 98 (4). April 1893.
Lloyd, Volvæ 3. *d.* 13. *d.* 1898 and Rev Myc. **21**: 92. July 1899.

Williams, Asa Gray Bull. **8**: 104. Oct. 1900.
McIlvaine & Macadam, Am. Fung. 12. *d.* 1900.
Agaricus recutitus, Fr.
Curtis, M. A., Bot. N. Car. 83. 1867.
Morg. Jour. Myc. **3**: 27. *d.* March 1887.

Amanita rubescens, P.
S. Syn. Car. 79 (53) no. 550. 1822.
Sacc. Cub. & Manc. Syll. **5**: 16. *d.* 28 May 1887.
Banning in Pk. Rept. N. Y. Mus. **44**: 177 (65). Dec. 1891.
Taylor, Food Products 2: 21. 1893.
Pk. Country Gent. **59**: 566 (43). *d. f.* 2 Aug. 1894.
Kellerm. & Werner, Geol. Ohio 7^2: 300. Jan. 1895.
Pk. Rept. N. Y. Mus. **48**: 255 (157). *pl. 16, f.* March 1897.
Underw. & Earle, Bull. Ala. Exp. Sta. 80: 255. 28 June 1897.
Williams, Asa Gray Bull. **6**: 84. *f.* 13^6. Oct. 1898.
Farl. Yearb. U. S. Agr. **1897**: 458, 461. 1898. [Bull. 15.]
Lloyd, Volvæ 7. *d.* 15. 1898 and Rev. Myc. **21**: 93. July 1899.
[Underw.] N. Y. Myc. Club 16. 1898.
Pk Bull. N. Y. Mus. **6**: 192. July 1899.
Williams, Asa Gray Bull. **7**: 79. Aug. 1899.
Herbst, Fungal Fl. Lehigh Valley 30. *d.* 1899.
Jelliffe, Flora of Long Island 42. 1899.
Longyear, Rept. Mich. Bd. Agr. **1898**: 92. 1899.
Underw. Moulds 120. 1899.
Webster, Rhodora **2**: 193. 8 Sept. 1900.
Atk. Mushrooms 71. *d. f. 73. pl. 19, f. 1. pl. 20, f. 74.* 20 Oct. 1900.
Williams, Asa Gray Bull. **8**: 103. Oct. 1900.
Hyams, Bull. N. Car. Exp. Sta. 177: 31. Dec. 1900.
Atk. in Bailey's Cycl. Am. Hort. 1044. 1900.
McIlvaine & Macadam, Am. Fung. 21. *d. pl. 8, f. 2. pl. 12, f. 4.* 1900.
Pk. Rept. N. Y. Mus. **53**: 855. 19 March 1901.
Earle in Mohr, Contr. U. S. Nat. Herb. **6**: 229. 31 July 1901.
White, Bull. Torr. Bot. Club **29**: 562. 26 Sept. 1902.
Conant, Bull. Boston Myc. Club 19: 5 Feb. 1903.
Kellerm. Myc. Bull. **2**: 84. *f.* 75. 5 Sept. 1904.
Longyear, Rept. Mich. Acad. **4**: 115. 1904.
Agaricus rubescens, Fr.
S. Syn. Am. Bor. 145 no. 8. 1834.
Lea, Cat. Pl. Cin. 48. 1849.
Curtis, M. A., Bot. N. Car. 83. 1867.
Cke. Handbook 9. *d.* 1871.
Pk. Rept. N. Y. Mus. **24**: 59. 1872.
Parker, Proc. Poughk. Soc. **1**: 84. 1 Nov. 1875.
Frost in Cat. Pl. Amherst 62. 1875.
James, Jour. Cin. Soc. **2**: 63 (22). April 1879.
Banning, Bot. Gaz. **5**: 6. *d.* Jan. 1880.
Banning, Bot. Gaz. **5**: 23. Feb. 1880.
Morg. Jour. Cin. Soc. **6**: 59. *d.* April 1883.
Pk. Rept. N. Y. Mus. **33**: 44. *d.* Oct. 1883.
Morg. Jour. Myc. **3**: 29. *d.* March 1887.
Cobb, List Pl. Amherst 31. 1887.
Bennett, Cat. Pl. R. I. 76. 1888.
Ell. in Cat. Pl. N. J. 468. 1889.
Taylor, Hdbk. Mushrooms 5: 7. *d. pl. 14, f. 5–9.* 1898.
Amanita pustulata, (Schæff.) Schrt.
Henn. in Engler & Prantl, Pflanzenfam. 1^{1**}: 274. *d. f. 125A.* 1898.
Perry, Agricultural Student **6**: 179. May 1900 and Ohio Univ. Bull. IV. 30: 8. May 1900.

Amanita rubescens, P., var. **circinata,** P.
Amanita circinata, Schum.
Taylor, Food Products 2: 21. 1893.

Amanita russuloides, Pk.
Pk. Bull. Buf. Soc. **1**: 41. *d.* July 1873.
Pk. Rept. N. Y. Mus. **25**: 72. *d.* Sept. 1873.
Sacc. Cub. & Manc. Syll. **5**: 13. *d.* 28 May 1887.
Henn. in Engler & Prantl, Pflanzenfam. **1**^{1**}: 275. 1898.
Lloyd, Volvæ 5. *d.* 14. *d.* 1898 and Rev. Myc. **21**: 92. July 1899.
Williams, Asa Gray Bull. **7**: 79. Aug. 1899.
Williams, Asa Gray Bull. **8**: 103. Oct. 1900.
McIlvaine & Macadam, Am. Fung. 18. *d.* 1900.
Agaricus russuloides, Pk.
Pk. Bull. Buf. Soc. **1**: 41. *d.* July 1873.
Pk. Rept. N. Y. Mus. **25**: 72. *d.* Sept. 1873.
Pk. Rept. N. Y. Mus. **33**: 43. *d.* Oct. 1883.
Morg. Jour. Myc. **3**: 28. *d.* March 1887.

Amanita soleata, Howe.
See ***Amanitopsis volvata,*** (Pk.) Sacc.

Amanita solitaria, (Bull.) Fr.

NOTE. The *Agaricus bulbosus,* Schæff., listed by Muhlenberg, 1799 is referred by Streinz to *Amanita solitaria,* (Bull.) Fr. The American references to *Amanita solitaria* and *Amanita strobiliformis* are very much confused and in fact the distinctions between these two species as given by European authors are far from clear. It seems to us that it may be assumed that some of the references here given under both these species are open to question. See note under *Amanita bulbosa,* P. Is not *Clitocybe solitaria,* Jelliffe, Fl. L. I. 42. 1899 a misprint for *Amanita solitaria?*

Banning in Pk. Rept. N. Y. Mus. **44**: 177 (65). Dec. 1891.
Atk. & Schrenk, Jour. Mitch. Soc. **9**: 98 (4). April 1893.
Atk. Bull. Cornell Univ. **3**: 24. 25 June 1897.
Underw. & Earle, Bull. Ala. Exp. Sta. 80: 255. 28 June 1897.
Lloyd, Volvæ 6. *d.* 14. *d.* 1898 and Rev. Myc. **21**: 93. July 1899.
Williams, Asa Gray Bull. **7**: 79. Aug. 1899.
Herbst, Fungal Fl. Lehigh Valley 29. *d.* 1899.
Atk. Mushrooms 72. *d. pl. 21, f. 75, pl. 22, f. 76.* 20 Oct. 1900.
Williams, Asa Gray Bull. **8**: 103. Oct. 1900.
Atk. in Bailey's Cycl. Am. Hort. 1044. 1900.
McIlvaine & Macadam, Am. Fung. 19. *d.* 1900.
Earle in Mohr, Contr. U. S. Nat. Herb. **6**: 229. 31 July 1901.
Conant, Bull. Boston Myc. Club 19: 5 Feb. 1903.
Agaricus solitarius, Bull.
Banning, Bot. Gaz. **5**: 7. *d.* Jan. 1880.
Pk. Rept. N. Y. Mus. **33**: 18, 45. *d.* Oct. 1883.
Morg. Jour. Myc. **3**: 29. *d.* March 1887.
Agaricus bulbosus, Schæff.
Muhl. Tr. Am. Phil. Soc. **4**: 239. 1799.
Agaricus polypyramis, B. & C.
B. & C. Ann. Nat. Hist. II. **12**: 417 (1). *d.* Dec. 1853.
Curtis, M. A., Bot. N. Car. 83. 1867.
Morg. Bot. Gaz. **8**: 156. *d.* Jan. 1883.
Amanita polypyramis, B. & C.
B. & C. Ann. Nat. Hist. II. **12**: 417 (1). *d.* Dec. 1853.
Sacc. Cub. & Manc. Syll. **5**: 18. *d.* 28 May 1887.
Millsp. & Nutt. Publ. Field Columb. Mus. Bot. **1**: 157. *d.* Jan. 1896.
Henn. in Engler & Prantl, Pflanzenfam. **1**^{1**}: 275. 1898.

Lloyd, Volvæ 6, 14. *d.* 1898 and Rev. Myc. **21**: 93. July 1899.
Atk. Mushrooms 74. 20 Oct. 1900.

Amanita spadicea, P.
See ***Amanitopsis vaginata,*** (Bull.) Roze, var. ***livida,*** (P.) Pk.

Amanita spissa, Fr.
Banning in Pk. Rept. N. Y. Mus. **44**: 177 (65). *d.* Dec. 1891.
Lloyd, Volvæ 7. *d.* 15. 1898 and Rev. Myc. **21**: 93. July 1899.
McIlvaine & Macadam, Am. Fung. 22. *d.* 1900.
MacKay, Tr. N. Scot. Inst. **11**: 124. Aug. 1904.
Agaricus spissus, Fr.
Somers, Tr. N. Scot. Inst. **5**: 247. 1882.

Amanita spreta, Pk.
Pk. Rept. N. Y. Mus. **33**: 42. *d.* Oct. 1883.
Pk. Rept. N. Y. Mus. **32**: 24. *d.* 1886.
Sacc. Cub. & Manc. Syll. **5**: 12. *d.* 28 May 1887.
Atk. Bull. Cornell Univ. **3**: 24. 25 June 1897.
Underw. & Earle, Bull. Ala. Exp. Sta. 80: 255. 28 June 1897.
Lloyd, Volvæ 3. *d.* 13. *d.* 1898 and Rev. Myc. **21**: 92. July 1899.
Henn. in Engler & Prantl, Pflanzenfam. 1^{1**}: 276. 1898.
Williams, Asa Gray Bull. **7**: 78. Aug. 1899.
Herbst, Fungal Fl. Lehigh Valley 26. *d.* 1899.
Atk. Mushrooms 69. *d. f. 71.* 20 Oct. 1900.
McIlvaine & Macadam, Am. Fung. 11. *d. pl. 6, f. 1.* 1900.
Earle in Mohr, Contr. U. S. Nat. Herb. **6**: 229. 31 July 1901.
Ricker, Univ. of Maine Studies 3: 55. 30 April 1902.
White, Bull. Torr. Bot. Club **29**: 562. 26 Sept. 1902.
Agaricus spretus, Pk.
Pk. Rept. N. Y. Mus. **33**: 42. *d.* Oct. 1883.
Pk. Rept. N. Y. Mus. **32**: 24. *d.* 1886.
Morg. Jour. Myc. **3**: 26. *d.* March 1887.

Amanita strangulata, Fr.
See ***Amanitopsis strangulata,*** (Fr.) Roze.

Amanita strobiliformis, (Vitt.) Fr.
Banning in Pk. Rept. N. Y. Mus. **44**: 177 (65). Dec. 1891.
Taylor, Food Products 2: 21. 1893.
Pk. Country Gent. **59**: 566 (44). 2 Aug. 1894.
Underw. & Earle, Bull. Ala. Exp. Sta. 80: 255. 28 June 1897.
Williams, Asa Gray Bull. **6**: 83. *f.* 13^5. Oct. 1898.
Lloyd, Volvæ 6. *d.* 14. 1898 and Rev. Myc. **21**: 93. July 1899.
Williams, Asa Gray Bull. **7**: 79. Aug. 1899.
[Williams?] Asa Gray Bull. **7**: 87. *d. pl. 6.* Oct. 1899.
Herbst, Fungal Fl. Lehigh Valley 29. *d.* 1899.
Williams, Asa Gray Bull. **8**: 104. Oct. 1900.
Atk. in Bailey's Cycl. Am. Hort. 1044. 1900.
McIlvaine & Macadam, Am. Fung. 19. *d. pl. 8, f. 3.* 1900.
Earle in Mohr, Contr. U. S. Nat. Herb. **6**: 229. 31 July 1901.
Conant, Bull. Boston Myc. Club 19: 5 Feb. 1903.
Kellerm. Ohio Myc. Bull. **1**: 26. *f. 32.* 31 July 1903.
MacKay, Tr. N. Scot. Inst. **11**: 124. Aug 1904.
Agaricus strobiliformis, Vitt.
Curtis, M. A., Bot. N. Car. 83. 1867.
Frost, Proc. Boston Soc. **12**: 77. 1869.
Frost in Cat. Pl. Amherst 62. 1875.
Farl. Bull. Bussey Inst. **1**: 436. March 1876.
Morg. Fl. Miami Valley 67. 1878.
Banning, Bot. Gaz. **5**: 5. *d.* Jan. 1880.
Hark. & Moore, Cat. Pac. Fung. 2. Feb. 1880.

Pk. Rept. N. Y. Mus. **33**: 18, 46. *d.* Oct. 1883.
Morg. Jour. Myc. **3**: 29. *d.* March 1887.
Cobb, List Pl. Amherst 31. 1887.
Taylor, Hdbk. Mushrooms 5: 8. *d. pl. 14½.* 1898.
Hyams, Bull. N. Car. Exp. Sta. 177: 30. Dec. 1900.
Agaricus muscarius, var. ***major,*** Pk.
Pk. Rept. N. Y. Mus. **23**: 69. *d.* 1872.
Amanita muscaria, var. ***major,*** Pk.
Pk. Rept. N. Y. Mus. **23**: 69. d. 1872.
Lloyd, Volvæ 21. 1898.

Amanita submaculata, Pk.
Pk. Bull. Torr. Bot. Club **27**: 609. *d.* 29 Dec. 1900.
Shear, Plant World, **4**: 18. Jan. 1901.
Sacc. & Syd. Syll. **16**: 1. *d.* 1 Feb. 1902.

Amanita umbrina, P.
See ***Amanita pantherina,*** (DC.) Fr.

Amanita vaginata, Lam.
See ***Amanitopsis vaginatus,*** (Bull.) Roze.

Amanita velatipes, Atk.
Atkinson, Mushrooms 61, 63. *d. pl. 15, f. 64. f. 65, 66. pl. 16, f. 67.* 20 Oct. 1900 and Rhodora **3**: 40. 1 Feb. 1901.

Amanita velosa, Lloyd.
See ***Amanitopsis velosa,*** Pk.

Amanita verna, Auct. Amer.
See ***Amanita phalloides,*** Fr.

Amanita virescens, P.

NOTE. Schweinitz states that his *Amanita virescens,* var. *alba,* S. Syn. Car. 551 is the same as *Agaricus virescens,* Fr. S. M. 1: 19, which is *Amanita virescens,* P. The species is considered doubtful by Fries and is said to differ from *Amanita rubescens,* P. only in color and in the presence of polyedral warts.

Lloyd, Volvæ 21. 1898.
Agaricus virescens, Fr.
S. Syn. Am. Bor. 145 no. 9. 1834.
Amanita virescens, var. ***alba,*** S. Syn. Car. 551.
S. Syn. Car. 79 (53) no. 551. 1822.

Amanita virgata, S.
See ***Volvaria volvacea,*** (Bull.) Fr.

Amanita viridis, var. **fuliginea,** S. Syn. Car. 545.
See ***Amanita phalloides,*** Fr.

Amanita virosa, Fr.
Underw. Proc. Ind. Acad. **1893**: 61. Aug. 1894.
Kellerm. & Werner, Geol. Ohio **7**[2]: 300. Jan. 1895.
Underw. & Earle, Bull. Ala. Exp. Sta. 80: 255. 28 June 1897.
Lloyd, Volvæ 4. *d.* 13. 1898 and Rev. Myc. **21**: 92. July 1899.
Williams, Asa Gray Bull. **7**: 78. Aug. 1899.
Atk. Mushrooms 61. *d. f. 62.* 20 Oct. 1900.
Williams, Asa Gray Bull. **8**: 104. Oct. 1900.
McIlvaine & Macadam, Am. Fung. 6. *d.* 1900.
Atk. in Bailey's Cycl. Am. Hort. 1044. 1900.
Earle in Mohr, Contr. U. S. Nat. Herb. **6**: 229. 31 July 1901.
Schaffner, Ohio Nat. **4**: 18. Nov. 1903.
Hay. Bull. Nat. Hist. Soc. N. B. **5**: 114. 1903.
MacKay, Tr. N. Scot. Inst. **11**: 124. Aug. 1904.

Agaricus virosus, Fr.
Lea, Cat. Pl. Cin. 48. 1849.
Sprague, Proc. Boston Soc. **6**: 316. 1859.
Curtis, M. A., Bot. N. Car. 83. 1867.
James, Jour. Cin. Soc. **2**: 63 (22). April 1879.
Hark. & Moore, Cat. Pac. Fung. 2. Feb. 1880.
Morg. Jour. Cin. Soc. **6**: 60. *d.* April 1883.
Morg. Jour. Myc. **3**: 26. *d.* March 1887.
Macbr. Bull. Iowa Univ. **1**: 182. *d.* 1890.

Amanita volvata, Pk.
See ***Amanitopsis volvata,*** (Pk.) Sacc.

Amanitopsis adnata, (W. G. Smith) Sacc.
McIlvaine & Macadam, Am. Fung. 30. *d.* 1900.
Agaricus adnatus, W. G. Smith.
Johnson, Bull. Minn. Acad. **1**: 209. 1877 and Rept. Minn. Surv. **5**: 67. 1877.
Hark. & Moore, Cat. Pac. Fung. 2. Feb. 1880.
Somers, Tr. N. Scot. Inst. **5**: 189. 1882.
Bundy, Geol. Wis. 1873–79, **1**: 396. 1883.
Morg. Jour. Myc. **3**: 31. *d.* March 1887.
Amanita adnata, Smith, W. G.
Lloyd, Volvæ 9. *d.* 16. 1898 and Rev. Myc. **21**: 94. July 1899.
Herbst, Fungal Fl. Lehigh Valley 32. *d.* 1899.
MacKay, Tr. N. Scot. Inst. **11**: 123. Aug. 1904.

Amanitopsis agglutinata, (B. & C.) Sacc.
Sacc. Cub. & Manc. Syll. **5**: 23. *d.* 28 May 1887.
Atk. Bull. Cornell Univ. **3**: 24. 25 June 1897.
Henn. in Engler & Prantl, Pflanzenfam. **1**^{1**}: 273. 1898.
McIlvaine & Macadam, Am. Fung. 32. *d.* 1900.
Earle in Mohr, Contr. U. S. Nat. Herb. **6**: 228. 31 July 1901.
Agaricus agglutinatus, B. & C.
B. & C. Hook. Jour. Bot. **1**: 97 (1). *d.* 1849. [Decades 201.]
B. & C. Am. Jour. Sci. II. **8**: 401. Nov. 1849.
Curtis, M. A., Bot. N. Car. 83. 1867.
Morg. Jour. Myc. **3**: 31. *d.* March 1887.
Amanita agglutinata, B. & C.
B. & C. Hook. Jour. Bot. **1**: 97 (1). *d.* 1849. [Decades 201.]
Lloyd, Volvæ 9, 15. *d.* 1898 and Rev. Myc. **21**: 94. July 1898.

Amanitopsis alboreata, Atk.
Atk. Jour. Myc. **8**: 111. *d.* 14 Oct. 1902.
Sacc. Syll. **17**: 2. *d.* 25 May 1905.
Agaricus nivalis, Pk. non Grev.
Pk. Rept. N. Y. Mus. **33**: 48. *d.* Oct. 1883.
Morg. Jour. Myc. **3**: 32. *d.* March 1887.
Amanita nivalis, Pk.
Pk. Rept. N. Y. Mus. **33**: 48. *d.* Oct. 1883.
Fairman, Proc. Rochester Acad. **2**: 154. Feb. 1893.
Lloyd, Volvæ 9, 16. *d.* 1898 and Rev. Myc. **21**: 94. July 1899.
Beardslee, Amanitas S. Appalach. 6. *d.* Sept. 1902.
Amanitopsis nivalis, Sacc. Syll. p. p. non Grev.
Sacc. Cub. & Manc. Syll. **5**: 22. May 28, 1887.
Atk. Bull. Cornell Univ. **3**: 24. 25 June 1897.
Earle in Mohr, Contr. U. S. Nat. Herb. **6**: 228. 31 July 1901.

Amanitopsis baccata, (Fr.) Sacc.
Amanita baccata, Fr.
Beardslee, Amanitas S. Appalach. 2. *d. pl. 1.* Sept. 1902.

Amanitopsis Cubensis, (B. & C.) Sacc. Syll.
Sacc. Cub. & Manc. Syll. **5**: 25. *d.* 28 May 1887. West Indies.
Agaricus Cubensis, B. & C.
B. & C. Jour. Linn. Soc. **10**: 282. *d.* 1869.

Amanitopsis daucipes, (B. & Mont.) Sacc. Syll.
Sacc. Cub. & Manc. Syll. **5**: 26. *d.* 28 May 1887.
Henn. in Engler & Prantl, Pflanzenfam. **1**^{1**}: 273. 1898.
Agaricus daucipes, B. & Mont.
Mont. Syll. Crypt. 96. *d.* 1856.
Amanita daucipes, B. & Mont.
Mont. Syll. Crypt. 96. *d.* 1856.
Lloyd, Volvæ 7. 14. *d.* 1898 and Rev. Myc. **21**: 93. July 1899.
Williams, Asa Gray Bull. **7**: 79. Aug. 1899.
McIlvaine & Macadam, Am. Fung. 25. *d.* 1900.

Amanitopsis farinosa, (S.) Atk.
Atk. Mushrooms 76. *d. f.* 78. 20 Oct. 1900.
McIlvaine & Macadam, Am. Fung. 31. *d.* 1900.
Earle in Mohr, Contr. U. S. Nat. Herb. **6**: 228. 31 July 1901.
Atk. in Coker, Veg. Bahama 246. 1905.
Amanita farinosa, S.
S. Syn. Car. 79 (53) no. 553. *d.* 1822.
Lloyd, Volvæ 9, 16. *d.* 1898 and Rev. Myc. **21**: 94. July 1899.
Williams, Asa Gray Bull. **7**: 79. Aug. 1899.
Herbst, Fungal Fl. Lehigh Valley 31. *d.* 1899.
Williams, Asa Gray Bull. **8**: 104. Oct. 1900.
Beardslee, Amanitas S. Appalach. 4. *d.* Sept. 1902.
Agaricus farinosus, S.
S. Syn. Am. Bor. 145 no. 6. 1834.
Fr. Epicr. 11. 1836–38.
Curtis, M. A., Bot. N. Car. 83. 1867.
Pk. Rept. N.Y. Mus. **23**: 70. *d.* 1872.
Pk. Rept. N. Y. Mus. **33**: 49. *d.* Oct. 1883.
Morg. Jour. Myc. **3**: 32. *d.* March 1887.
Ell. in Cat. Pl. N. J. 468. 1889.

Amanitopsis hyperborea, Karst.
Amanita hyperborea, Karst.
Rostr. Meddelelser om Groenl. **3**: 528. 1888.
Rostr. Meddelelser om Groenl. **3**: 596. 1891.

Amanitopsis lenticularis, (Lasch) Massee.
See ***Lepiota lenticularis,*** (Lasch) Gillet.

Amanitopsis nivalis, (Grev.) Sacc. p. p.
See ***Amanitopsis vaginata,*** (Bull.) Roze var. **alba,** Sacc.

Amanitopsis nivalis, Sacc. Syll. p. p.
See ***Amanitopsis albocreata,*** Atk.

Amanitopsis parcivolvata, Pk.
Pk. Bull. Torr. Bot. Club **27**: 610. *d.* 29 Dec. 1900.
Sacc. & Syd. Syll. **16**: 2. *d.* 1 Feb. 1902.

Amanitopsis plumbea, Schrt.
See ***Amanitopsis vaginata,*** (Bull.) Roze.

Amanitopsis pubescens, (S.) Sacc.
Sacc. Cub. & Manc. Syll. **5**: 25. *d.* 28 May 1887.
Henn. in Engler & Prantl, Pflanzenfam. **1**^{1**}: 273. 1898.
McIlvaine & Macadam, Am. Fung. 32. *d.* 1900.
Amanita pubescens, S.
S. Syn. Car. 79 (53) no. 554. *d.* 1822.

Lloyd, Volvæ 9, 16. *d.* 1898 and Rev. Myc. **21**: 94. July 1899.
Beardslee, Amanitas S. Appalach. 6. Sept. 1902.
Agaricus pubescens, S.
S. Syn. Am. Bor. 145. no. 11. 1834.
Fr. Epicr. 12. 1836–38.
Curtis, M. A., Bot. N. Car. 83. 1867.
Morg. Jour. Myc. **3**: 33. *d.* March 1887.

Amanitopsis pusilla, Pk.
Pk. Rept. N. Y. Mus. **50**: 96. *d.* 28 March 1898.
Sacc. & Syd. Syll. **14**: 64. *d.* 20 Aug. 1899.
McIlvaine & Macadam, Am. Fung. 32. *d.* 1900.
Amanita pusilla, Lloyd.
Lloyd, Volvæ 9, 16. *d.* 1898 and Rev. Myc. **21**: 94. July 1899.

Amanitopsis strangulata, (Fr.) Roze.
Underw. & Earle, Bull. Ala. Exp. Sta. 80: 255. 28 June 1897.
Pk. Rept. N. Y. Mus. **51**[1]: 300. *d. pl. 50, f. 1–10.* 11 Feb. 1899 and Rev. Myc. **22**: 51. April 1900.
Pk. Mem. N. Y. Mus. **3**: 134. *d. pl. 44, f. 1–10.* Nov. 1900.
McIlvaine & Macadam, Am. Fung. 30. *d. pl. 10, f. 4.* 1900.
Earle in Mohr, Contr. U. S. Nat. Herb. **6**: 228. 31 July 1901.
Brown & Fernekes, Bull. Wis. Nat. Hist. Soc. II. **2**: 46. Jan. 1902.
Conant, Bull. Boston Myc. Club 19: 5 Feb. 1903.
Pk. Rept. N. Y. Mus. **56**[4]: 35. May 1903. [Bull. 67.]
Agaricus strangulatus, Fr.
Hark. & Moore, Cat. Pac. Fung. 2. Feb. 1880.
Pk. Rept. N. Y. Mus. **33**: 48. *d.* Oct. 1883.
Morg. Jour. Myc. **3**: 32. *d.* March 1887.
Ell. in Cat. Pl. N. J. 468. 1889.
Amanita strangulata, Fr.
Lloyd, Volvæ 9, 16. 1898 and Rev. Myc. **21**: 94. July 1899.
Williams, Asa Gray Bull. **7**: 79. Aug. 1899.
Beardslee, Amanitas S. Appalach. 6. *d. pl. 2.* Sept. 1902.
Agaricus Ceciliæ, B. & Br.
Pk. Rept. N. Y. Mus. **23**: 70. *d.* 1872.
Frost in Cat. Pl. Amherst 62. 1875.
Johnson, Bull. Minn. Acad. **1**: 208. 1877 and Rept. Minn. Surv. **5**: 67. 1877.
Bundy, Geol. Wis. 1873–79, **1**: 396. 1883.
Cobb, List Pl. Amherst 31. 1887.
Amanita Ceciliæ, B. & Br.
Webster, Am. Kitchen Mag. **6**: 215. Feb. 1897.
Lloyd, Volvæ 21. 1898.

Amanitopsis vaginata, (Bull.) Roze.
Sacc. Cub. & Manc. Syll. **5**: 21. *d.* 28 May 1887.
Banning in Pk. Rept. N. Y. Mus. **44**: 178 (66). Dec. 1891.
Atk. & Schrenk, Jour. Mitch. Soc. **9**: 98 (4). April 1893.
Pk. Country Gent. **59**: 566 (44). *f.* 2 Aug. 1894.
Kellerm. & Werner, Geol. Ohio **7**[2]: 300. Jan. 1895.
Pk. Rept. N. Y. Mus. **48**: 257 (159). *pl. 17, f. 1–4.* March 1897.
Atk. Bull. Cornell Univ. **3**: 24. 25 June 1897.
Underw. & Earle, Bull. Ala. Exp. Sta. 80: 255. 28 June 1897.
Taylor, Hdbk. Mushrooms 5: 9. *d.* 1898.
[Underw.] N. Y. Myc. Club 16. 1898.
Pk. Bull. N. Y. Mus. **6**: 192. July 1899.
Longyear, Rept. Mich. Bd. Agr. **1898**: 92. 1899.
Underw. Moulds 120. 1899.
McIlvaine & Macadam, Am. Fung. 28. *d. pl. 10, f. 1, 2.* 1900.

Atk. Mushrooms 74. *d. pl. 23, f.* 77. 20 Oct. 1900.
Sweetser, Bull. Pacific Univ. **14**: 12. May 1901.
Earle in Mohr, Contr. U. S. Nat. Herb. **6**: 228. 31 July 1901.
Brown & Fernekes, Bull. Wis. Nat. Hist. Soc. II. **2**: 46. Jan. 1902.
Webster, Rhodora **4**: 78. 4 April 1902.
White, Bull. Torr. Bot. Club **29**: 562. 26 Sept. 1902.
Conant, Bull. Boston Myc. Club 19: 5 Feb. 1903.
Longyear, Rept. Mich. Acad. **4**: 115. 1904.
Kellerm. Myc. Bull. **2**: 89. *f.* 79. 20 Nov. 1904.
Pseudofarinaceus speciosior, Batt.
Pound, Clement and others, Bot. Surv. Nebr. 4: 43. 20 Jan. 1896.
Agaricus vaginatus, Bull.
S. Syn. Am. Bor. 145 no. 2. 1834.
Lea, Cat. Pl. Cin. 48. 1849.
Rav. Charleston Med. Jour. & Rev. **6**: 190. March 1851.
Sprague, Proc. Boston Soc. **6**: 316. 1859.
B. Jour. Linn. Soc. **5**: 86. 1861 and Arctic Manual 2: 526. 1875.
Curtis, M. A., Bot. N. Car. 83. 1867.
Cke. Handbook 5. *d.* 1871.
Pk. Rept. N. Y. Mus. **23**: 69. *d.* 1872.
Bon. Zweite Nordpolarfahrt **2**: 90. 1874 and Arctic Manual 2: 585. 1875.
Frost in Cat. Pl. Amherst 62. 1875.
Smith, W. G., Tr. Bot. Soc. Edinb. **9**: 465 (37). 1868 and Arctic Manual 2: 283. 1875.
Farl. Bull. Bussey Inst. **1**: 436. March 1876.
Johnson, Bull. Minn. Acad. **1**: 208. 1877 and Rept. Minn. Surv. **5**: 67. 1877.
Morg. Fl. Miami Valley 67. 1878.
Cke. Grev. **7**: 43. Dec. 1878.
*Rav. Fung. Am. *397.* 1879.
James, Jour. Cin. Soc. **2**: 63 (22). April 1879.
Banning, Bot. Gaz. **5**: 6. *d.* 9. Jan. 1880.
Hark. & Moore, Cat. Pac. Fung. 2. Feb. 1880.
Somers, Tr. N. Scot. Inst. **5**: 189. 1882.
Morg. Jour. Cin. Soc. **6**: 59. *d.* April 1883.
Pk. Rept. N. Y. Mus. **33**: 47. *d.* Oct. 1883.
Bundy, Geol. Wis. 1873–79, **1**: 396. 1883.
Pk. in Day's Cat., Bull. Buf. Soc. **4**: 174 (110). 1883.
Bessey, Bull. Iowa Agr. Coll. **1884**: 146. Jan. 1885.
Cobb, List Pl. Amherst 31. 1887.
Morg. Jour. Myc. **3**: 31. *d.* March 1887.
Macbr. Bull. Univ. Iowa **1**: 36. *d.* Nov. 1888.
Ell. in Cat. Pl. N. J. 468. 1889.
Agaricus plumbeus, Schæff.
Muhl. Tr. Am. Phil. Soc. **4**: 239. 1799.
Agaricus badius, Schæff.
Muhl. Tr. Am. Phil. Soc. **4**: 239. 1799.
Amanita vaginata, Lam.
Lam. Encyc. **1**: 109. *d.* 1783.*
Rostr. Meddelelser om Groenl. **3**: 528. 1888.
Rostr. Meddelelser om Groenl. **3**: 596. 1891.
*Shear, N. Y. Fungi *4.* 1893.
Taylor, Food Products 2: 21. 1893.
Webster, Am. Kitchen Mag. **6**: 215. Feb. 1897.
Lloyd, Volvæ 8. *d. f.* 7. 15. 1898 and Rev. Myc. **21**: 93. July 1899.
Williams, Asa Gray Bull. **7**: 79. Aug. 1899.
Herbst, Fungal Fl. Lehigh Valley 31. *d.* 1899.

Williams, Asa Gray Bull. **8**: 104. Oct. 1900.
Lloyd, Myc. Notes 61. May 1901.
Beardslee, Amanitas S. Appalach. 2. *d.* Sept. 1902.
MacKay, Tr. N. Scot. Inst. **11**: 123. Aug. 1904.
Amanita badia, P.
Lloyd, Volvæ 21. 1898.
Amanitopsis plumbea, Schrt.
Henn. in Engler & Prantl, Pflanzenfam. **1**^{1**}: 273. *d.* 1898.
Perry, Agricultural Student **6**: 179. May 1900 and Ohio Univ. Bull. IV. 30: 8. May 1900.

Amanitopsis vaginata, (Bull.) Roze, var. **alba,** Sacc. Syll.
Pk. Country Gent. **59**: 567 (45). *d.* 2 Aug. 1894.
Pk. Rept. N. Y. Mus. **48**: 258 (160). *d.* March 1897.
Taylor, Hdbk. Mushrooms 5: 9. *d.* 1898.
Agaricus nivalis, Grev.
Morg. Jour. Myc. **3**: 32. *d.* March 1887.
Amanita nivalis, Grev.
Lloyd, Volvæ 9, 16. *d.* 1898.
Amanitopsis nivalis, (Grev.) Sacc. p. p.
Sacc. Cub. & Manc. Syll. **5**: 22. *d.* 28 May 1887.

Amanitopsis vaginata, (Bull.) Roze, var. **crassivolvata,** Pk.
Pk. in White, Bull. Torr. Bot. Club **29**: 562. *d.* 26 Sept. 1902.
Sacc. Syll. **17**: 3. *d.* 25 May 1905.

Amanitopsis vaginata, (Bull.) Roze, var. **fulva,** (Schæff.) Sacc. Syll.
Pk. Country Gent. **59**: 567 (45). *d.* 2 Aug. 1894.
Pk. Rept. N. Y. Mus. **48**: 258 (160). *d.* March 1897.
Taylor, Hdbk. Mushrooms 5: 9. *d.* 1898.
McIlvaine & Macadam, Am. Fung. 29. *d.* 1900.
Hay, Bull. Nat. Hist. Soc. N. B. **4**: 342. 1901 and **5**: 119. 1903.
Brown & Fernekes, Bull. Wis. Nat. Hist. Soc. II. **2**: 46. Jan. 1902.
White, Bull. Torr. Bot. Club **29**: 562. 26 Sept. 1902.
Agaricus fulvus, Schæff.
Muhl. Tr. Am. Phil. Soc. **4**: 239. 1799.

Amanitopsis vaginata, (Bull.) Roze, var. **livida,** (P.) Pk.
Pk. Country Gent. **59**: 567 (45). *d.* 2 Aug. 1894.
Pk. Rept. N. Y. Mus. **48**: 258 (160). *d. pl. 17, f. 5-9.* March 1897.
Taylor, Hdbk. Mushrooms 5: 9. *d.* 1898.
Hay, Bull. Nat. Hist. Soc. N. B. **4**: 342. 1901 and **5**: 119. 1903.
Amanita livida, P.
Muhl. Cat. Pl. Am. Sept. 1 ed. 104. 1813. 2 ed. 107. 1818.
Torrey, Cat. Pl. N. Y. 88. 1819.
S. Syn. Car. 78 (52) no. 538. 1822.
Hitchcock, Cat. Pl. Amherst 59. 1829.
Hitchcock, Cat. Pl. Mass. 644. 1833. 2 ed. 646 (126). 1835.
Lloyd, Volvæ 21. 1898.
Amanita spadicea, P.
Muhl. Cat. Pl. Am. Sept. 1 ed. 104. 1813. 2 ed. 107. 1818.
S. Syn. Car. 78 (52) no. 539. 1822.
Lloyd, Volvæ 21. 1898.

Amanitopsis velosa, Pk.

NOTE. The above name originally given by Peck in 1895 was changed by Saccardo and Sydow, apparently on etymological grounds to *Amanitopsis villosa.*

Pk. Bull. Torr. Bot. Club **22**: 485. *d.* 30 Dec. 1895.
McClatchie in Reid's Hist. Pasadena 619. 1895.
McClatchie, Proc. S. Cal. Acad. **1**: 385. 5 June 1897.
McIlvaine & Macadam, Am. Fung. 29. *d.* 1900.

Amanita velosa, Lloyd.
Lloyd, Volvæ 9, 15. *d.* 1898 and Rev. Myc. **21**: 93. July 1899.
Williams, Asa Gray Bull. **8**: 103. Oct. 1900.
Amanitopsis villosa, Sacc. Syll.
Sacc. Hedw. **35**. Rep. 7: I. 25 Feb. 1896.
Sacc. & Syd. Syll. **14**: 64. *d.* 20 Aug. 1899.

Amanitopsis villosa, Sacc. Syll.
See ***Amanitopsis velosa,*** Pk.

Amanitopsis volvata, (Pk.) Sacc.
Sacc. Cub. & Manc. Syll. **5**: 23. *d.* 28 May 1887.
Banning in Pk. Rept. N. Y. Mus. **44**: 178 (66). Dec. 1891.
Atk. & Schrenk, Jour. Mitch. Soc. **9**: 98 (4). April 1893.
Kellerm. & Werner, Geol. Ohio **7**[2]: 301. Jan. 1895.
Underw. & Earle, Bull. Ala. Exp. Sta. 80: 255. 28 June 1897.
Henn. in Engler & Prantl, Pflanzenfam. **1**[1**]: 273. 1898.
McIlvaine & Macadam, Am. Fung. 31. *d.* 1900.
Atk. Mushrooms 76. 20 Oct. 1900.
Earle in Mohr, Contr. U. S. Nat. Herb. **6**: 228. 31 July 1901.
White, Bull. Torr. Bot. Club. **29**: 563. 26 Sept. 1902.
Conant, Bull. Boston Myc. Club 19: 5 Feb. 1903.
Pk. Rept. N. Y. Mus. **56**[4]: 35. *d.* May 1903. [Bull. 67.]
Agaricus volvatus, Pk.
Pk. Rept. N. Y. Mus. **24**: 59. *d.* 1872.
Frost in Cat. Pl. Amherst 62. 1875.
Banning, Bot. Gaz. **6**: 201. April 1881.
Morg. Jour. Cin. Soc. **6**: 59. *d.* April 1883.
Pk. Rept. N. Y. Mus. **33**: 47. *d.* Oct. 1883.
Morg. Jour. Myc. **3**: 31. *d.* March 1887.
Cobb, List Pl. Amherst 31. 1887.
Amanita volvata, Pk.
Pk. Rept. N. Y. Mus. **24**: 59. *d.* 1872.
Lloyd, Volvæ 9. *d.* 15. *d.* 1898 and Rev. Myc. **21**: 94. July 1899.
Williams, Asa Gray Bull. **7**: 79. Aug. 1899.
Herbst, Fungal Fl. Lehigh Valley 30. *d.* 1899.
Williams, Asa Gray Bull. **8**: 104. Oct. 1900.
Agaricus soleatus, Howe.
Howe, Bull. Torr. Bot. Club **5**: 42. *d.* Oct. 1874.
Pk. Rept. N. Y. Mus. **33**: 49. Oct. 1883.
Amanita soleata, Howe.
Howe, Bull. Torr. Bot. Club **5**: 42. *d.* Oct. 1874.
Lloyd, Volvæ 9, 15. *d.* 21. 1898.

Amanitopsis volvata, (Pk.) Sacc., var. **elongatus,** Pk.
Pk. Rept. N. Y. Mus. **53**: 856. *d. pl. A, f. 6–10.* 19 March 1901.
Sacc. & Syd. Syll. **16**: 1110. 1 Feb. 1902.
Sacc. Syll. **17**: 3. *d.* 25 May 1905.

Amaurochæte atra, (A. & S.) Rostf.

NOTE. This name we have adopted rather than *A. fuliginosa* since it is accepted by nearly all writers and is based upon *Lycogala atrum,* A. & S. of which the description and figure are clearly characteristic whereas those of *Licea fuliginosa,* Sowerby are vague and uncertain. See also *Dermodium.*

Cke. Ann. N. Y. Lyceum **11**: 398. June 1877.
Pk. Rept. N. Y. Mus. **30**: 50. Sept. 1878.
Pk. Rept. N. Y. Mus. **31**: 56. 1879.
Berl. in Sacc. Syll. **7**: 401. *d.* 15 March, 1888.
Schrt. in Engler & Prantl, Pflanzenfam. **1**[1]: 25. *d.* June 1889.

Ell. in Cat. Pl. N. J. 598. 1889.
Massee, Mon. Myx. 89. *d.* Dec. 1892.
Lister, Mycetozoa 134. *d. pl. 51A.* 1894.
Harvey, Bull. Torr. Bot. Club **23**: 310. 20 Aug. 1896.
Ricker, Univ. of Maine Studies 3: 15. 30 April 1902.
Lycogala atrum, A. & S.
S. Syn. Car. 61 (35) no. 351. 1822.
Reticularia atra, Fr.
Curtis, M. A., Bot. N. Car. 111. 1867.
Cke. Handbook 379. *d.* 1871.
Johnson, Bull. Minn. Acad. **1**: 289. 1877 and Rept. Minn. Surv. **5**: 82. 1877.
Morg. Jour. Cin. Soc. **15**: 138 (12). *d.* March 1893.
Kellerm. & Werner, Geol. Ohio **7**[2]: 400. Jan. 1895.
Underw. & Earle, Bull. Ala. Exp. Sta. 80: 135. 28 June 1897.
Earle in Mohr, Contr. U. S. Nat. Herb. **6**: 141. 31 July 1901.
Reticularia Strongylium, S. Am. Bor.
S. Syn. Am. Bor. 262 no. 2374. 1834.
Rostf. Mycetozoa 242. 1875.
Cke. Ann. N. Y. Lyceum **11**: 402. June 1877.
Amaurochæte fuliginosa, (Sow.) Macbr.
Macbr. Slime-moulds 109. *d. pl. 5, f. 8, 8a.* Aug. 1899.

Amaurochæte fuliginosa, (Sow.) Macbr.
See ***Amaurochæte atra,*** (A. & S.) Rostf.

Amaurochæte minor, Sacc. & Ell.
Sacc. Mich. **2**: 566. Dec. 1882.
Berl. in Sacc. Syll. **7**: 401. *d.* 15 March 1888.
Lister, Mycetozoa 135. *d.* 1894.

Amerosporium Careum, (Lib.) Sacc.
*Ell. & Ev. N. A. F. 2575. Feb. 1891.
Tracy & Earle, Bull. Miss. Exp. Sta. 34: 112. May 1895.

Amerosporium cinctum, Ell. & Ev.
Ell. & Ev. Proc. Phil. Acad. **1895**: 435. *d.* Nov. 1895.
McClatchie in Reid's Hist. Pasadena 616. 1895.
Sacc. Hedw. **35**: Rep. 7: xliv. 25 Feb. 1896.
Sacc. & Syd. Syll. **14**: 1001. *d.* 20 Aug. 1899.

Amerosporium Dolichi, Ell. & Ev.
See ***Amerosporium œconomicum,*** Ell. & Tracy.

Amerosporium Equiseti, (Pk.) Sacc.
Sacc. Syll. **3**: 682. *d.* 15 Dec. 1884.
Excipula Equiseti, Pk.
Pk. Rept. N. Y. Mus. **26**: 77. *d.* April 1874.
Pk. in Day's Cat., Bull. Buf. Soc. **4**: 202 (138). 1883.

Amerosporium Geranii, Cke. & Hark.
Cke. & Hark. Grev. **13**: 112. *d.* June 1885.
Hark. Bull. Cal. Acad. **1**: 269 (14). 19 Nov. 1885.
Berl. & Vogl. in Sacc. Syll. Add. **1–4**: 359. *d.* 31 Dec. 1886.
Sacc. Syll. **10**: 436. *d.* 30 June 1892.

Amerosporium ilicinum, Ell. & Ev.
Langlois, Cat. Pl. La. 27. 1887.
Ell. & Halsted, Jour. Myc. **4**: 9. Jan. 1888.
Ell. & Ev. Jour. Myc **4**: 50. *d.* June 1888.
Sacc. Syll. **10**: 437. *d.* 30 June 1892.
Ell. & Ev. N. Am. Phyllostictas 40. Dec. 1900.

Amerosporium incurvum, (Cke.) Sacc.
Sacc. Syll. **3**: 681. *d.* 15 Dec. 1884.
Excipula incurva, Cke.
Cke. Grev. **5**: 151. *d.* June 1877.
Ell. in Cat. Pl. N. J. 589. 1889.

Amerosporium leucotrichum, (Pk.) Sacc.
Sacc. Syll. **3**: 682. *d.* 15 Dec. 1884.
Excipula leucotricha, Pk.
Pk. Rept. N. Y. Mus. **29**: 49. *d.* 1878.

Amerosporium macrochæta, Ell. & Ev.
Langlois, Cat. Pl. La. 27. 1887.
Ell. & Ev. Jour. Myc. **4**: 50. *d.* June 1888.
Sacc. Syll. **10**: 438. *d.* 30 June 1892.

Amerosporium microsporum, (C. & E.) Sacc.
Sacc. Syll. **3**: 681. *d.* 15 Dec. 1884.
Excipula microspora, C. & E.
C. & E. Grev. **6**: 4. *d. pl. 95, f. 18.* Sept. 1877.
Ell. in Cat. Pl. N. J. 589. 1889.

Amerosporium œconomicum, Ell. & Tracy.

NOTE. The names *Amerosporium œconomicum* and *A. Dolichi* are founded on material of the same host, locality, and collector and J. B. Ellis states in a letter that they are synonyms.

Ell. & Ev. Jour. Myc. **4**: 102. *d.* Oct. 1888.
Sacc. Syll. **10**: 437. *d.* 30 June 1892.
Tracy & Earle, Bull. Miss. Exp. Sta. 34: 112, *d.* May 1895.
Tracy & Earle, Bull. Miss. Exp. Sta. 38: 148. May 1896.
Atk. Bull. Cornell Univ. **3**: 33. 25 June 1897.
Underw. & Earle, Bull. Ala. Exp. Sta. 80: 175. 28 June 1897.
Earle in Mohr, Contr. U. S. Nat. Herb. **6**: 261. 31 July 1901.
Amerosporium Dolichi, Ell. & Ev.
*Ell. & Ev. N. A. F. *2574.* 1891.

Amerosporium punctiforme, (B.) Sacc.
Sacc. Syll. **3**: 681. *d.* 15 Dec. 1884.
Excipula punctiformis, B.
B. Grev. **2**: 97 (78) no. 453. *d.* Jan. 1874.

Amerosporium sabalinum, Ell. & Ev.
Langlois, Cat. Pl. La. 27. 1887.
Ell. & Ev. Jour. Myc. **4**: 50. *d.* June 1888.
Sacc. Syll. **10**: 437. *d.* 30 June 1892.

Amerosporium subelausum, Ell. & Kellerm.
Ell. & Kell. Jour. Myc. **5**: 143. *d.* Sept. 1889.
Sacc. Syll. **10**: 437. *d.* 30 June 1892.
Lindau in Engler & Prantl, Pflanzenfam. **1**^{1**}: 395. Jan. 1900.

Amorphomyces, Thax.
Thax. Proc. Am. Acad. **28**: 158. *d.* 20 June 1893 and Jour. Roy. Micr. Soc. **1894**: 96. *d.* Feb. 1894 and Bot. Centralbl. Beiheft. **4**: 111. *d.* 1894.
Thax. Proc. Am. Acad. **29**: 106. 11 Jan. 1894.
Thax. Mem. Am. Acad. **12**: 295. *d. pl. 5, f. 17–29.* Dec. 1896.
Lindau in Engler & Prantl, Pflanzenfam. **1**^{1}: 501. *d.* April 1897.
Sacc. & Syd. Syll. **14**: 728. 20 Aug. 1899.

Amorphomyces Falagriæ, Thax.
Thax. Proc. Am. Acad. **28**: 158. *d.* 20 June 1893.
Thax. Proc. Am. Acad. **29**: 106. 11 Jan. 1894.
Sacc. Syll. **11**: 449. July 1895.

Thax. Mem. Am. Acad. **12**: 296. *d. pl. 5, f. 17–29.* Dec. 1896.
Lindau in Engler & Prantl, Pflanzemfam. **1**[1]: 501. *f. 291 C.* April 1897.
Sacc. & Syd. Syll. **14**: 728. *d.* 20 Aug. 1899.
Ricker, Univ. of Maine Studies 3: 41. 30 April 1902.

Amorphomyces Floridanus, Thax.
See ***Dioicomyces Floridanus,*** Thax.

Ampelomyces quisqualis, Ces.

NOTE. The name *Ampelomyces quisqualis,* Ces. given in Klotzsch Herb. Viv. Myc. *1669.* 1852 and also in Bot. Zeit. **10**: 301. 23 April 1852 certainly antedates *Cicinnobolus,* Ehrb. which did not appear until the following year (Bot. Zeit. **11**: 16. 7 Jan. 1853) and then in a very vague way.

The true structure and position of the genus *Cicinnobolus* were first given by De Bary in Beitr. Morph. und Phys. der Pilze **3**: 53–75. *pl. 11, 12.* 1870 where he called the species *Cicinnobolus Cesatii.* In our opinion the name *Cicinnobolus Cesatii,* D By. is the name which should be preferred to any other but we do not agree with De Bary in referring the genus to Ehrenberg but consider that he is himself the real author of the genus.

Griffiths, Bull. Torr. Bot. Club. **26**: 184, 186. *d. pl. 358.* 12 April 1899.
Underw. Moulds 232. *pl. 5, f. 3.* 1899.
Nelson, Rept. Wyo. Exp. Sta. **10**: (29). 1900.
*Griffiths, West Am. Fung. *132, 133, 133[a].* 22 March 1902.

Cicinnobolus Cesatii, D By.

Hark. Bull. Cal. Acad. **1**: 258 (3). 19 Nov. 1885.
Burrill & Earle, Bull. Ill. Lab. **2**: 390, 391. *f. 2.* July 1887.
Halsted, Bull. Iowa Agr. Coll. **1888**: 110. April 1888.
Pammel, Jour. Myc. **4**: 38. *d.* May 1888.
Scribner, Rept. U. S. Agr. **1887**: 375, 378, 395. *pl. 11, f. 2.* 1888.
Kellerm. & Swingle, Rept. Kans. Exp. Sta. **1**: 312. *d.* Feb. 1889.
Gall. Rept. U. S. Agr. **1888**: 355. *d. pl. 7, f. 6.* 1889.
Anderson, Jour. Myc. **5**: 84. June 1889.
*Seymour & Earle, E. F. *145.* 1 Sept. 1892.
Underw. Proc. Ind. Acad. **1893**: 43. Aug. 1894.
*Ell. & Ev. Fung. Columb. *960.* April 1896.
*Ell. & Ev. N. A. F. *3445.* 10 Dec. 1896.
Stevens, F. L., Rept. Ohio Acad. **4**: 21. 1896.
Pammel & Carver, Proc. Iowa Acad. **3**: 146. 1896.
Atk. Bull. Cornell Univ. **3**: 29. 25 June 1897.
Underw. & Earle, Bull. Ala. Exp. Sta. 80: 163. 28 June 1897.
Stevens, F. L., Rept. Ohio Acad. **5**: 64. 1897.
Orton, Rept. Vt. Exp. Sta. **11**: 205. Sept. 1898 and Contr. Bot. Vt. 2: 7. Sept. 1898.
Brannon, Proc. Ind. Acad. **1898**: 293. Dec. 1899.
Orton, Rept. Vt. Exp. Sta. **12**: 172. Dec. 1899 and Contr. Bot. Vt. 7: 172. Dec. 1899.
Patterson, Bull. U. S. Agr. Pl. Industry 8: 23. 3 Feb. 1902.
*Barthol. Ell. & Ev. Fung. Columb. *1815.* 28 Dec. 1903.

Amphiphytum, S.

NOTE. Where this genus was described and whether it is a North American genus we are unable to ascertain. It is referred to in the citations given below and also in Reichenbach, Conspect. Reg. Veg. 1828 as a doubtful genus but we have been unable to trace the name in Schweinitz, the author designated by Endlicher and Corda.

Endl. Gen. Pl. 35. 1840.
Cda. Icon. **5**: 44. 1842.

Amphisphærella aperta, Cke.
See ***Rosellinia aperta,*** (S.) Sacc.

Amphisphærella Diderma, Cke.
See ***Rosellinia Diderma,*** (S.) Sacc.

Amphisphæria acicola, Sacc.
See ***Neopeckia Coulteri,*** (Pk.) Sacc.

Amphisphæria æthiops, (B. & C.) Sacc.
Sacc. Syll. **1**: 722. *d.* 13 June 1882.
Cke. Grev. **16**: 89. March 1888.
Ell. & Ev. Pyren. 204. *d.* May 1892.
Sphæria æthiops, B. & C.
Curtis, M. A., Bot. N. Car. 146. 1867.
B. Grev. **4**: 143 (181) no. 918. *d.* June 1876.

Amphisphæria albomaculans, (S.) Cke.
Cke. Grev. **16**: 89, 91. *d.* March 1888.
Sacc. Syll. **9**: 747. *d.* 15 Sept. 1891.
Ell. & Ev. Pyren. 204. *d.* May 1892.
Sphæria albomaculans, S.
S. Syn. Am. Bor. 215 no. 1592. 1834.
Sacc. Syll. **2**: 413. *d.* 13 June 1883.

Amphisphæria aperta, Cke.
See ***Rosellinia aperta,*** (S.) Sacc.

Amphisphæria apiosporioides, Rehm.
Rehm, Hedw. **39**: 323. *d. f.* 7. 28 Dec. 1900.
Sacc. & Syd. Syll. **16**: 504. *d.* 1 Feb. 1902.

Amphisphæria applanata, (Fr.) Ces. & De Not.
Farl. Appalachia **3**: 247. Jan. 1884.
Ell. & Ev. Pyren. 206. *d.* May 1892.
Harvey, Bull. Torr. Bot. Club **23**: 53. 29 Feb. 1896.
Ricker, Univ. of Maine Studies 3: 32. 30 April 1902.
Sphæria applanata, Fr. p. p.
S. Syn. Am. Bor. 214 no. 1574. 1834.

Amphisphæria applanata, (Fr.) Ces. & De Not., var. **Alaskæ,** Sacc.
Sacc. Syll. **17**: 685. *d.* 25 May 1905.
Amphisphæria applanata, Sacc. in Alaska Exp.
Sacc., Pk. & Trel., Harriman Alaska Exp. **5**: 30. *d.* 5 April 1904.

Amphisphæria aquatica, (Ell. & Ev.) Berl. & Vogl.
Berl. & Vogl. in Sacc. Syll. Add. **1–4**: 125. *d.* 31 Dec. 1886.
Cke. Grev. **16**: 89. March 1888.
Sacc. Syll. **9**: 744. *d.* 15 Sept. 1891.
Ell. & Ev. Pyren. 205. *d.* May 1892.
Sphæria aquatica, Ell. & Ev.
Ell. & Ev. Torr. Bull. **11**: 42. *d.* April 1884.
Didymosphæria aquatica, Ell. & Ev.
Ell. in Cat. Pl. N. J. 523. 1889.

Amphisphæria aspera, Ell. & Ev.
Ell. & Ev. Bull. Torr. Bot. Club **27**: 52. *d.* 17 Feb. 1900.
Sacc. & Syd. Syll. **16**: 505. *d.* 1 Feb. 1902.

Amphisphæria aterrima, Pat.
Pat. in Duss Champ. Guad. & Martinique 71. *d.* 1903. West Indies.
Sacc. Syll. **17**: 684. *d.* 25 May 1905.

Amphisphæria atrograna, (C. & E.) Sacc.
Sacc. Syll. **1**: 722. *d.* 13 June 1882.
Ell. in Cat. Pl. N. J. 518. 1889.
Ell. & Ev. Pyren. 201. *d.* May 1892.
Sphæria atrograna, C. & E.
C. & E. Grev. **8**: 15. *d.* Sept. 1879.
Melanomma atrogranum, Cke.
Cke. Grev. **16**: 52. Dec. 1887.

Amphisphæria bisphærica, (C. & E.) Sacc.
Sacc. Syll. **1**: 721. *d.* 13 June 1882.
Cke. Grev. **16**: 89. March 1888.
Ell. in Cat. Pl. N. J. 518. 1889.
Ell. & Ev. Pyren. 201. *d.* May 1892.
*Ell. & Ev. Fung. Columb. *1318.* May 1899.
Sphæria bisphærica, C. & E.
C. & E. Grev. **7**: 41. *d.* Dec. 1878.
*Ell. N. A. F. *1339.* 1885.

Amphisphæria botulispora, (Cke.) Sacc.
Sacc. Syll. **1**: 719. *d.* 13 June 1882.
Ell. & Ev. Pyren. 203. *d.* May 1892.
Sphæria botulispora, Cke.
C. & E. Grev. **6**: 96. *pl. 100, f. 31.* March 1878.
Cke. Ann. N. Y. Acad. **1**: 186. *d.* May 1878.
Cke. Jour. Linn. Soc. **17**: 143. *d.* 1880.
Xylosphæria botulispora, Cke.
Cke. Grev. **17**: 86. June 1889.

Amphisphæria caryophaga, Cke.
See ***Trematosphæria caryophaga,*** (S.) Sacc.

Amphisphæria conferta, (S.) Sacc.

NOTE. The *Sphæria conferta* of Schweinitz, Syn. Car. 187 was said by Schweinitz to be the same as the *Sphæria confertula*, S. Am. Bor. 1508. The *Sphæria conferta* of S. Am. Bor. 1477 according to Ellis and to our own examination of an original specimen is immature *Sphærella maculiformis*, (P.) Awd.

With regard to *Sphæria conferta*, S. Syn. Car. 187, the spores are said by Cooke, Grev. **15**: 81. *d.* March 1887 to be two-parted and on this authority it forms the basis of *Amphisphæria conferta*, (S.) Sacc. Starbaeck, 1894, found no spores in Schweinitzian specimens but noted a marked resemblance externally to *Sphæria euomphala*, B. & C. Ellis in Proc. Phil. Acad. **1895**: 25 (6). 21 Feb. 1895 gives details of spores of *Sphæria confertula* from Pennsylvania and expresses a doubt whether it is the same as the North Carolina specimens of that name.

We have examined a specimen of *S. confertula* (*S. conferta*, S Syn. Car.) from Carolina and the external resemblance to *S. euomphala* is marked, as stated by Starbaeck but the spores do not agree either with those described by Cooke or with those described by Ellis. Two kinds of spores were seen; one dark-colored, elliptic, 8–9 μ, by 2.8 μ, filling the perithecium but no asci were seen and in one case slender, clavate asci 84 μ long by 7 μ broad with hyaline acicular spores 14–16 μ by 2.8 μ, 6– to 8–guttulate but not clearly septate.

From the above it will be seen that it is hopeless to expect to be able to recognize what Schweinitz understood by *S. conferta* and *S. confertula*. We have given below the synonomy based on Cooke's notes on the spores but we do not believe that the species is an *Amphisphæria* nor that any one at the present day can say to what genus it belongs. It should be placed permanently under *species ignotæ*.

Sacc. Syll. **9**: 747. *d.* 15 Sept. 1891.
Ell. & Ev. Pyren. 206. *d.* May 1892.
Sphæria conferta, S. Syn. Car. 187.
S. Syn. Car. 45 (19) no. 187. *d.* 1822.
Fr. S. M. **2**: 444. *d.* 1823.
Spreng. in L. Syst. Veg. 16 ed. **4**[1]: 388. *d.* 1827.
Sacc. Syll. **2**: 401. *d.* 13 June 1883.
Ell. & Ev. Pyren. 745. May 1892.
Starb. Bot. Notiser **1893**: 28. 15 Feb. 1893.
Starb. Bihang till K. Sv. Vet. Akad. Handl. **19**[3]: no. 2: 25. 1894.
Sphæria confertula, S.
S. Syn. Am. Bor. 211 no. 1508. 1834.
Curtis, M. A., Bot. N. Car. 144. 1867.
Byssosphæria (Amphisphæria) ***conferta,*** Cke.
Cke. Grev. **15**: 81. *d.* March 1887.
Cke. Grev. **15**: 123. June 1887.
Trematosphæria confertula, Ell.
Ell. Proc. Phil. Acad. **1895**: 25 (6). *d.* 21 Feb. 1895.
Sacc. Hedw. **35**: Rep. 7: xxix. *d.* 25 Feb. 1896.
Sacc. & Syd. Syll. **14**: 576. *d.* 20 Aug. 1899.

Amphisphæria confertissima, Ell. & Ev.
Ell. & Ev. Proc. Phil. Acad. **1895**: 418. *d.* Nov. 1895.
Sacc. Hedw. **35**: Rep. 7: xxviii. 25 Feb. 1896.
Sacc. & Syd. Syll. **14**: 557. *d.* 20 Aug. 1899.

Amphisphæria conica, (Lév.) Ces. & De Not.
Langlois, Cat. Pl. La. 27. 1887.

Amphisphæria decorticata, (Cke & Hark.) Berl. & Vogl.
Berl. & Vogl. in Sacc. Syll. Add. **1–4**: 124. *d.* 31 Dec. 1886.
Sacc. Syll. **9**: 742. *d.* 15 Sept. 1891.
Ell. & Ev. Pyren. 202. *d.* May 1892.
Sphæria decorticata, Cke. & Hark.
Cke. & Hark. Grev. **13**: 19. *d.* Sept. 1884.
Hark. Bull. Cal. Acad. **1**: 175. 7 March 1885.
Melanomma decorticatum, Cke.
Cke. Grev. **16**: 52. Dec. 1887.

Amphisphæria deerrata, Cke.
See ***Rosellinia deerrata,*** (C. & E.) Sacc.

Amphisphæria deformis, Ell. & Langlois.
Ell. & Ev. Jour. Myc. **4**: 123. *d.* Dec. 1888.
Sacc. Syll. **9**: 744. *d.* 15 Sept. 1891.
Ell. & Ev. Pyren. 202. *d.* May 1892.
Sacc. Syll. **11**: 316. *d.* July 1895.

Amphisphæria Despreauxii, Cke.
See ***Rosellinia Despreauxii,*** (Mont.) Sacc.

Amphisphæria Diderma, Cke.
See ***Rosellinia Diderma,*** (S.) Sacc.

Amphisphæria diffusa, Sacc.
See ***Neopeckia diffusa,*** (S.) Starb.

Amphisphæria dothideospora, Cke. & Hark.
Cke. & Hark. Grev. **14**: 9. *d.* Sept. 1885.
Hark. Bull. Cal. Acad. **1**: 271 (16). 19 Nov. 1885.
Berl. & Vogl. in Sacc. Syll. Add. **1–4**: 125. *d.* 31 Dec. 1886.
*Ell. & Ev. N. A. F. *1662.* 1886.
*Wint. Fung. Eur. *3553.* 1886.
Sacc. Syll. **9**: 746. *d.* 15 Sept. 1891.
Ell. & Ev. Pyren. 202. *d.* May 1892.

Melanomma dothideasporum, Cke.
Cke. Grev. **16**: 53. Dec. 1887.

Amphisphæria Eckfeldtii, Cke.
See ***Melanopsamma Eckfeldtii,*** (Ell.) Ell. & Ev.

Amphisphæria fallax, De Not.
Ell. & Ev. Proc. Phil. Acad. **1893**: 129. 28 Feb. 1893.

Amphisphæria granulosa, Ell. & Ev.
Ell. & Ev. Jour. Myc. **10**: 169. *d.* 24 June 1904.
Sacc. Syll. **17**: 685, *d.* 25 May 1905.

Amphisphæria Hypoxylon, Ell. & Ev.

NOTE. This belongs to the genus *Otthia.* See *Otthia Hypoxylon*, the name which is here given to retain the original specific name rather than *Otthia hypoxyloides* to which it was changed by Ellis and Everhart, Pyren. 249. May 1892.

Amphisphæria incrustans, Ell. & Ev.
Webber, Rept. Nebr. Agr. **1889**: 193 (53). 1890.
Ell. & Ev. Pyren. 201. *d.* May 1892.
Sacc. Syll. **11**: 316. *d.* July 1895.

Amphisphæria inspersa, Cke.
See ***Leptosphæria inspersa,*** (S.) Sacc.

Amphisphæria Juniperi, Tracy & Earle.
Tracy & Earle in Greene, Pl. Baker. **1**: 30. *d.* 22 Feb. 1901.
Sacc. & Syd. Syll. **16**: 1134. 1 Feb. 1902.
Sacc. Syll. **17**: 684. *d.* 25 May 1905.

Amphisphæria Langloisii, Ell. & Ev.
Ell. & Ev. Pyren. 205. *d.* May 1892.
Sacc. Syll. **11**: 315. *d.* July 1895.

Amphisphæria megalospora, (Mont.) Sacc.
Sacc. Syll. **1**: 724. *d.* 13 June 1882.
Sphæria megalospora, Mont.
B. & C. Jour. Linn. Soc. **10**: 388. 1869. West Indies.

Amphisphæria melantera, Ell. & Ev.
Ell. & Ev. Bull. Torr. Bot. Club **24**: 278. *d.* 29 June 1897.
*Ell. & Ev. N. A. F. *3521.* 24 Jan. 1898.
Lindau & Syd. Hedw. **37**: Beibl. 7: xxvii. 9 April 1898.
Ell. & Ev. Bull. Torr. Bot. Club **25**: 513. *d.* 10 Sept. 1898.
Sacc. & Syd. Syll. **14**: 556. *d.* 20 Aug. 1899.

Amphisphæria melasperma, (Cke.) Sacc.
Sacc. Syll. **1**: 725. *d.* 13 June 1882.
Ell. & Ev. Pyren. 203. *d.* May 1892.
Psilosphæria melasperma, Cke.
Cke. Grev. **8**: 118. *d.* March 1880.
Melanomma melaspermum, Cke.
Cke. Grev. **16**: 52. Dec. 1887.

Amphisphæria mobilis, (S.) Ell.

NOTE. The *Sphæria mobilis* of the Schweinitz herbarium according to Ellis is an *Amphisphæria* and not the *Sphæria mobilis* of Fr. S. M. **2**: 461 or of Tode which is a *Nectria.* All American references belong to the *Amphisphæria.* It should be called to mind that in several instances the name has been misspelled *nobilis.*

Ell. & Ev. Proc. Phil. Acad. **1895**: 26 (7) *d.* April 1895.
Sacc. Hedw. **35**: Rep. 7: xxviii. *d.* 25 Feb. 1896.
Sacc. & Syd. Syll. **14**: 557. *d.* 20 Aug. 1899.

Sphæria mobilis, S. non Tode.
S. Syn. Car. 45 (19) no. 198. 1822.
Fr. S. M. **2**: 461. *d.* 1823.
S Syn. Am. Bor. 214 no. 1569. 1834.
Curtis, M. A., Bot. N. Car. 145. 1867.
Nectria mobilis, Auct. Amer.
Sacc. Syll. **2**: 510. 13 June 1883.
Ell. & Ev. Pyren. 110. *d.* May 1892.

Amphisphæria mycophila, Cke.
See ***Rosellinia mycophila***, (Fr.) Sacc.

Amphisphæria nuda, Ell. & Ev.
Ell. & Ev. Erythea **2**: 18. *d.* 9 Feb. 1894.
*Ell. & Ev. N. A. F. *3011*. April 1894.
Sacc. Syll. **11**: 315. *d.* July 1895.
*Ell. & Ev. Fung. Columb. *1036*. 22 Dec. 1896.

Amphisphæria obtusissima, Cke.
See ***Rosellinia obtusissima***, (B. & C.) Sacc.

Amphisphæria Oronoensis, (Ell. & Ev.) Sacc.
Sacc. Syll. **9**: 746. *d.* 15 Sept. 1891.
Ell. & Ev. Pyren. 203. *d.* May 1892.
Harvey, Bull. Torr. Bot. Club **23**: 53. 29 Feb. 1896.
Ricker, Univ. of Maine Studies 3: 32. 30 April 1902.
Sphæria Oronoensis, Ell. & Ev.
Ell. & Ev. Jour. Myc. **3**: 117. *d.* Oct. 1887.

Amphisphæria Papilla, (S.) Sacc.
Sacc. Mich. **2**: 138. *d.* April 1880.
Cke. Grev. **16**: 89. March 1888.
*Ell. & Ev. N. A. F. *3012*. April 1894.
Ell. Proc. Phil. Acad. **1895**: 23 (4). *d.* April 1895.
Sacc. Hedw. **35**: Rep. 7: xxviii. 25 Feb. 1896.
Sacc. & Syd. Syll. **14**: 557. *d.* 20 Aug. 1899.
Sphæria Papilla, S.
S. Syn. Car. 42 (16) no. 159. *d.* 1822.
Fr. S. M. **2**: 462. *d.* 1823.
S. Syn. Am. Bor. 214 no. 1572. 1834.
Sprague, Proc. Boston Soc. **6**: 320. 1859.
Curtis, M. A., Bot. N. Car. 145. 1867.
Pk. Rept. N. Y. Mus. **22**: 99. 1869.
B. Grev. **4**: 144 (182). *d.* June 1876.
Melanopsamma Papilla, Sacc.
Sacc. Syll. **1**: 580. *d.* 13 June 1882.
Ell. & Ev. Pyren. 178. *d.* May 1892.

Amphisphæria papillata, (Schum.) De Not.
Ell. & Ev. Pyren. 206. *d.* May 1892.
Sphæria papillata, Schum.
Fr. S. M. **2**: 461. *d.* 1823.*
S. Syn. Am. Bor. 214 no. 1570. 1834.

Amphisphæria peniophora, Cke.
See ***Melanomma callicarpum***, (Sacc.) Berl.

Amphisphæria phileura, (C. & P.) Sacc.
Sacc. Syll. **1**: 725. *d.* 13 June 1882.
Cke. Grev. **16**: 89. March 1888.
Ell. & Ev. Pyren. 203. *d.* May 1892.
Sphæria phileura, C. & P.
C. & P. in C. & E. Grev. **5**: 55. *d. pl. 81, f. 6.* Dec. 1876.

Amphisphæria pilosella, Ell. & Ev.
Ell. & Ev. Proc. Phil. Acad. **1895**: 418. *d.* Nov. 1895.
Sacc. Hedw. **35**: Rep. 7: xxviii. 25 Feb. 1896.
Sacc. & Syd. Syll. **14**: 557. *d.* 20 Aug. 1899.

Amphisphæria piniicola, Rehm.
*Ell. & Ev. N. A. F. *3113*. Nov. 1894.
Millsp. & Nutt. Publ. Field Columb. Mus. Bot. **1**: 141. Jan. 1896.

Amphisphæria Platani, Ell. & Ev.
Ell. & Ev. Pyren. 205. *d.* May 1892.
Sacc. Syll. **11**: 315. *d.* July 1895.

Amphisphæria Populi, Tracy & Earle.
Tracy & Earle in Greene, Pl. Baker. **1**: 30. *d.* 22 Feb. 1901.
Sacc. & Syd. Syll. **16**: 1134. 1 Feb. 1902.
Sacc. Syll. **17**: 685. *d.* 25 May 1905.

Amphisphæria prinicola, Cke.
See ***Rosellinia prinicola,*** (B. & C.) Sacc.

Amphisphæria pseudo-umbrina, Sacc.
Pound, Bot. Surv. Nebr. 3: 7. 18 June 1894.

Amphisphæria putaminum, Cke.
See ***Caryospora putaminum,*** (S.) Sacc.

Amphisphæria quercetis, Cke. & Massee.
Cke. Grev. **16**: 89, 92. *d.* March 1888.
Sacc. Syll. **9**: 742. *d.* 15 Sept. 1891.
Ell. & Ev. Pyren. 205. *d.* May 1892.

Amphisphæria salebrosa, (C. & P.) Sacc.
Sacc. Syll. **1**: 726. *d.* 13 June 1882.
Ell. & Ev. Pyren. 202. *d.* May 1892.
Sphæria salebrosa, C. & P.
Pk. Rept. N. Y. Mus. **29**: 61. *d.* 1878.
Melanomma salebrosum, Cke.
Cke. Grev. **16**: 52. Dec. 1887.

Amphisphæria separans, Ell. & Ev.
Ell. & Ev. Bull. Torr. Bot. Club **24**: 130. *d.* 30 March 1897.
Lindau & Syd. Hedw. **37**: Beibl. 7: xxvii. 9 April 1898.
Smyth, Tr. Kans. Acad. **16**: 164. July 1899.
Sacc. & Syd. Syll. **14**: 555. *d.* 20 Aug. 1899.
Earle, Bull. Ala. Exp. Sta. 107: 323. April 1900.

Amphisphæria subiculosa, Ell. & Ev.
See ***Neopeckia diffusa,*** (L.) Starb., var. ***Rhodomphalos,*** (B.) n. n.

Amphisphæria thujina, (Pk.) Sacc.
Sacc. Syll. **1**: 726. *d.* 13 June 1882.
Cke. Grev. **16**: 89. March 1888.
Ell. & Ev. Pyren. 204. *d.* May 1892.
Sphæria thujina, Pk.
Pk. Rept. N. Y. Mus. **27**: 110. *d.* 1875.

Amphisphæria tumulata, (Cke.) Sacc.
Sacc. Syll. **1**: 727. *d.* 13 June 1882.
Ell. & Ev. Pyren. 204. *d.* May 1892.
Sphæria tumulata, Cke.
Cke. Grev. **7**: 4. *d.* Sept. 1878.
Hark. & Moore, Cat. Pac. Fung. 44. Feb. 1880.
Xylosphæria tumulata, Cke.
Cke. Grev. **17**: 86. June 1889.

Amphisphæria umbrina, (Fr.) De Not.
*Ell. & Ev. N. A. F. *2922.* Oct. 1893.
Jelliffe, Flora of Long Island 30. 1899.

Amphisphæria Wellingtoniæ, (Cke. & Hark.) Berl. & Vogl.
Berl. & Vogl. in Sacc. Syll. Add. **1–4**: 124. *d.* 31 Dec. 1886.
Sacc. Syll. **9**: 743. *d.* 15 Sept. 1891.
Ell. & Ev. Pyren. 206. *d.* May 1892.
Sphæria Wellingtoniæ, Cke. & Hark.
Cke. & Hark. Grev. **13**: 19. *d.* Sept. 1884.
Hark. Bull. Cal. Acad. **1**: 174. 7 March 1885.
Xylosphæria Wellingtoniæ, Cke.
Cke. Grev. **17**: 86. June 1889.

Amphitrichum albocoronatum, O. Kuntze.
See ***Ceratostomella albocoronata,*** (Ell.) Sacc.

Amphitrichum Araliæ, Spreng.
See ***Meliola Araliæ,*** (Spreng.) Mont.

Amphitrichum brevirostre, O. Kuntze.
See ***Ceratostomella brevirostre,*** (Duf.) Sacc.

Amphitrichum capillare, O. Kuntze.
See ***Ceratostomella capillare,*** (Ell.) Sacc.

Amphitrichum cirrhosum, O. Kuntze.
See ***Ceratostomella cirrhosa,*** (P.) Sacc.

Amphitrichum echinellum, O. Kuntze.
See ***Ceratostomella echinella,*** Ell. & Ev.

Amphitrichum hystricinum, O. Kuntze.
See ***Ceratostomella hystricina,*** (Cke.) Sacc.

Amphitrichum investitum, O. Kuntze.
See ***Ceratostomella investita,*** (S.) Starb.

Amphitrichum Mali, O. Kuntze.
See ***Ceratostomella Mali,*** Ell. & Ev.

Amphitrichum microsporum, O. Kuntze.
See ***Ceratostomella microspora,*** Ell. & Ev.

Amphitrichum nigrum, (Tode) O. Kuntze.
See ***Ceratostomella rostrata,*** (Fr.) Sacc.

Amphitrichum nyssicola, O. Kuntze.
See ***Ceratostomella nyssicola,*** (B. & C.) Sacc.

Amphitrichum Sacchari, Spreng.
See ***Meliola amphitricha,*** Fr.

Amphitrichum strictum, O. Kuntze.
See ***Ceratostomella stricta,*** (P.) Sacc.

Androsaceus aciculæformis, Duss.
See ***Marasmius aciculæformis,*** B. & C.

Androsaceus atrorubens, Duss.
See ***Marasmius atrorubens,*** B.

Androsaceus Bulliardi, Duss.
See ***Marasmius Bulliardi,*** Quel.

Androsaceus castaneus, Duss.
See ***Marasmius castaneus,*** Mont.

Androsaceus corrugatus, Pat.
See ***Marasmius corrugatus,*** (Pat.) Sacc. & Syd.

Androsaceus dispar, Duss.
See ***Collybia dispar,*** (Mont.) Sacc.

Androsaceus ferrugineus, Duss.
See ***Marasmius ferrugineus,*** B.

Androsaceus glaucopus, Pat.
See ***Marasmius glaucopus,*** (Pat.) n. n.

Androsaceus hæmatocephalus, Pat.
See ***Marasmius hæmatocephalus,*** (Mont.) Fr.

Androsaceus Myricæ, Pat.
See ***Marasmius Myricæ,*** (Pat.) Sacc. & Syd.

Anellaria fimiputris, (Bull.) Karst.
Sacc. Cub. & Manc. Syll. **5**: 1126. *d.* 28 May 1887.
Kellerm. & Werner, Geol. Ohio 7^2: 317. Jan. 1895.
Henn. in Engler & Prantl, Pflanzenfam. 1^{1**}: 234. *d.* 1898.
Agaricus fimiputris, Bull.
Lea, Cat. Pl. Cin. 53. 1849.
Andrews, Proc. Boston Soc. **5**: 322. April 1856.
Frost, Proc. Boston Soc. **12**: 77. 1869.
Cke. Handbook 156. *d.* 1871.
Frost in Cat. Pl. Amherst 66. 1875.
Johnson, Bull. Minn. Acad. **1**: 239. 1877 and Rept. Minn. Surv. **5**: 12. 1877.
James, Jour. Cin. Soc. **2**: 64 (23). April 1879.
Hark. & Moore, Cat. Pac. Fung. 8. Feb. 1880.
Morg. Jour. Cin. Soc. **6**: 116. *d.* July 1883.
Cobb, List Pl. Amherst 33. 1887.
Panæolus fimiputris, Fr.
Underw. Proc. Ind. Acad. **1893**: 62. Aug. 1894.

Anellaria separata, (L.) Karst.
McIlvaine & Macadam, Am. Fung. 388. *d. pl. 109.* 1900.
Agaricus separatus, L.
Curtis, M. A., Bot. N. Car. 91. 1867.
Winder, Mushrooms of Canada 20. 1871. [1877.
Johnson, Bull. Minn. Acad. **1**: 239. and Rept. Minn. Surv. **5**: 72.
Somers, Tr. N. Scot. Inst. **5**: 249. 1882.
Agaricus semiovatus, Sow.
S. Syn. Car. 85 (59) no. 711. 1822.
S. Syn. Am. Bor. 151 no. 249. 1834.
Andrews, Proc. Boston Soc. **5**: 322. April 1856.
Panæolus separatus, Fr.
Banning in Pk. Rept. N. Y. Mus. **44**: 187 (75). Dec. 1891.
Herbst, Fungal Fl. Lehigh Valley 76. *d.* 1899.

Angelina Fr.
Fr. Summa 358. *d.* 1849.
Duby, Mem. Soc. Phys. et Hist. Nat. **16**: 51 (39). *d.* 1862.
Durand, Jour. Myc. **8**: 108, 109. *d.* 14 Oct. 1902.

Angelina Leprieurii, Mont.
See ***Triblidiella Leprieurii,*** (Mont.) Sacc.

Angelina maura, Ell.
See ***Hysteropatella Prostii,*** (Duby) Rehm.

Angelina nigrocinnabarina, B. & C.
See ***Triblidiella nigrocinnabarina,*** (S.) Durand.

Angelina rufescens, (S.) Duby.
Duby, Mem. Soc. Phys. et Hist. Nat. **16**: 51 (39). *d.* 1862.
Cke. Bull. Buf. Soc. **3**: 35. Nov. 1875.
*Thm. Myc. Univ. 72. 1875.
*Ell. N. A. F. *466.* 1880.
*Rehm, Ascomyceten *361.* 1877.
Rehm, Ascomyceten 89. *d.* 1881.
Sacc. Syll. **2**: 740. *d.* 13 June 1883.

Pk. in Day's Cat., Bull. Buf. Soc. **4**: 222 (158). 1883.
Wint. & Demet. Hedw. **24**: 198 (22). Oct. 1885.
Ell. in Cat. Pl. N. J. 542. 1889.
Ell. & Ev. Pyren. 686. *d.* May 1892.
Harvey, Bull. Torr. Bot. Club **23**: 57. 29 Feb. 1896.
Lindau in Engler & Prantl, Pflanzenfam. 1^1: 268. May 1896.
Underw. & Earle, Bull. Ala. Exp. Sta. 80: 196. 28 June 1897.
Earle in Mohr, Contr. U. S. Nat. Herb. **6**: 162. 31 July 1901.
Ricker, Univ. of Maine Studies 3: 40. 30 April 1902.
Durand, Jour. Myc. **8**: 109. *d.* 14 Oct. 1902.

Hysterium rufescens, S.
S. Syn. Car. 50 (24) no. 252. *d.* 1822.
Grev. Scot. Crypt. Fl. **1**: *pl. 60.* 1823.
Fr. S. M. **2**: 583. *d.* 1823.
Spreng. in L. Syst. Veg. 16 ed. 4^1: 413. *d.* 1827.
Fr. El. **2**: 141. 1828.
Hitchcock, Cat. Pl. Amherst 61. 1829.
S. Syn. Am. Bor. 244 no. 2081. 1834.
Hitchcock, Cat. Pl. Mass. 646. 1833. 2 ed. 647 (127). 1835.
De Not. Prime Linee Isterini 51 (47). *d.* 1847.
Fr. Nova Acta R. Soc. Sci. Upsal. III. **1**: 122. 1851.
Sprague, Proc. Boston Soc. **5**: 331. 1856.
Duby, Mem. Soc. Phys. et Hist. Nat. **16**: 51 (39). *d.* 1862.
Billings, Am. Nat. **5**: 630. *d. pl. 11, f. w.* Oct. 1871.
Frost in Cat. Pl. Amherst 92. 1875.
Rehm, Hedw. **25**: 196 (42). Oct. 1886.
Cobb, List Pl. Amherst 45. 1887.

Ascobolus conglomeratus, S.
Fr. El. **2**: 16. 1828.
S. Syn. Am. Bor. 178 no. 960. *d.* 1834.
Sprague, Proc. Boston Soc. **5**: 330. 1856.
*Rav. Fung. Car. **5**: *44.* 1860.
Curtis, M. A., Bot. N. Car. 135. 1867.
Pk. Rept. N. Y. Mus. **22**: 95. 1869.
B. Grev. **4**: 6 (144). *d.* Sept. 1875.
Frost in Cat. Pl. Amherst 91. 1875.
Cobb, List. Pl. Amherst 47. 1887.

Angelina conglomerata, Fr.
Fr. Summa 358. 1849.
Fr. Nova Acta R. Soc. Sci. Upsal. III. **1**: 121. *d.* 1851.
Boud. Ann. Sci. Nat. V. **10**: 213. *d.* 1869.
Morg. Jour. Myc. **8**: 182. 20 Dec. 1902.

Angioridium sinuosum, Grev.
See ***Physarum sinuosum,*** (Bull.) Fr.

Angioridium valvatum, B.
See ***Physarum bogoriense,*** Racib.
See ***Physarum pallidum,*** (B. & C.) Lister.

Anixia.

Note. The genus *Anixia* was originally defined by Fries. If the modern genus is to be credited to Fries it can be only to Fries in Hoffmann, Icones Anal. 3: 70. 1863 as is done by Lindau in Engler & Prantl, Pflanzenfam. 1^1: 333. Jan. 1897. Since the genus as at present understood is based on *Didymium parietinum*, Schrader, it may be questioned whether it would not be better to retain the genus *Anixia* for the ill-defined species first proposed by Fries, and, following Rostafinski, to raise to generic rank the subgenus *Myogala* of Fries in Summa Veg. Scand. 448. 1846 which included only the original *Didymium parietinum* of Schrader but one could

not follow Rostafinski in substituting for Schrader's name that of *bicolor* taken from the later *Licea bicolor* of Persoon.

Of the two North American species referred to *Anixia*, *A. interrupta* can not belong to the genus in the modern sense, judging by the description of Schweinitz. We have seen no specimen however. Of the second species we know but a single published record although it has been collected several times in this country. It is the same as *Anixia parietina*, (Schrad.) Lindau.

The spelling of *Myogala* has been changed to *Mycogala* in certain references, whether on etymological grounds or not we do not know; but the *Mycogala parietinum* of Sacc. Syll. **3**: 185. *d.* 15 Dec. 1884 placed in *Fungi Imperfecti* can not be as stated by him the *Myogala bicolor* of Rostafinski, Mycetozoa 301. 1875 since Rostafinski included the *A. truncigena* of Hoffmann, which is ascosporic.

Anixia interrupta, S.
S. Syn. Am. Bor. 264 no. 2395. *d.* 1834.
Sacc. Syll. **1**: 36. *d.* 13 June 1882.

Anixia parietina, (Schrad.) Lindau.
Lycogala parietinum, Fr.
Sprague, Proc. Boston Soc. **5**: 328. 1856.
Berl. in Sacc. Syll. **7**: 386. *d.* 15 March 1888.

Annularia Fenzlii, Schulz.
Agaricus Fenzlii, Schulz.
Morg. Bot. Gaz. **8**: 156. Jan. 1883.

Annularia lævis, (Krombh.) Fr.
Pound & Clements, Bot. Surv. Nebr. 5: 25. 30 March 1901.
Agaricus lævis, Krombh.
Morg. Bot. Gaz. **8**: 156. Jan. 1883.

Annularia mammillata, Longyear.
Longyear, Rept. Mich. Acad. **3**: 59. *d. f. 4.* 1902.
Longyear, Rept. Mich. Acad. **4**: 115. *d.* 1904.

Anonymos Caroliniensis, Walt.

NOTE. Following his peculiar custom this author has used the name *Anonymos* for species in various groups which are uncertain. The plant here referred to is apparently one of the *Gasteromycetes* but it can not be determined with certainty.

Walt. Fl. Car. 263. *d.* 1788.

Antennaria, Lk.
See ***Antennularia,*** Reichenbach.

Antennaria arctica, Sacc.
See ***Antennularia arctica,*** (Rostr.) n. n.

Antennaria elæophila, Mont.
See ***Antennularia elæophila,*** (Mont.) n. n.

Antennaria Guava, Cke.
See ***Antennularia Guava,*** (Cke.) n. n.

Antennaria pinophila, Nees.
See ***Antennularia pinophila,*** (Nees) n. n.

Antennaria rectangularis, Sacc.
See ***Antennularia rectangularis,*** (Sacc.) n. n.

Antennaria Robinsonii, B. & Mont.
See ***Antennularia Robinsonii,*** (B. & Mont.) Wildeman.

Antennaria semiovata, B. & Br.
See ***Antennularia semiovata,*** (B. & Br.) n. n.

Antennariella, sp. indet.
Henn. Hedw. Beibl. **41**: (102). *d.* 23 June 1902. Cent. Amer.

Antennatula arctica, Rostr.

See ***Antennularia arctica,*** (Rostr.) n. n.

Antennularia, Reichenbach.

NOTE. Unless one adopts the principle that the same name may be applied to genera both of fungi and of phænogams — a principle in favor of which something might be said — the genus *Antennaria* of *Fungi* can not stand since *Antennaria,* Lk. 1809 is antedated by *Antennaria,* Gærtner 1791, a genus of *Compositæ.*

Reichenbach in 1828 substituted for *Antennaria,* Lk. the name *Antennularia* which he afterwards changed to *Antennataria,* there being an earlier genus of animals of the former name. According to modern views the change was not required and therefore the oldest name for the heterogeneous collection of species classed by mycologists under *Antennaria* is *Antennularia* rather than the more recent *Antennina,* Fr., *Antennula,* Strauss and *Antennatula,* Strauss.

The species of *Antennaria* are placed by some writers, as Rostrup, in *Hyphomyceteæ* and by others, as Saccardo and Lindau, in *Perisporiaceæ,* although of the thirteen species recognized by Lindau only one is known to have asci. As it is, the genus is merely a temporary resting place for a number of imperfect forms and for the sake of uniformity in generic nomenclature and to avoid the use of a name better known in phænogams than in fungi we have adopted the name *Antennularia.*

Antennularia arctica, (Rostr.) n. n.

Antennatula arctica, Rostr.

Rostr. Meddelelser om Groenl. **3**: 577. *d.* 1888 and Bot. Centralbl. **36**: 7. *d.* 1888.

Rostr. Meddelelser om Groenl. **3**: 629. 1891.

Rostr. Meddelelser om Groenl. **18**: 72 (30). 1894.

Antennaria arctica, Sacc.

Sacc. Syll. **9**: 442. *d.* 15 Sept. 1891.

Antennularia elæophila, (Mont.) n. n.

Antennaria elæophila, Mont.

Halsted, Bull. Iowa Agr. Coll. **1888**: 118. April 1888.

Antennularia Guava, (Cke.) n. n.

NOTE. This species was described without special locality in a paper on California fungi. The material is apparently the same as that cited by Harkness and Moore, 1880, where the locality given is Hawaii not California. Whether the species really occurs in the United States is not certain. The spelling given by Harkness and Moore is *Guavæ* and the spelling *Guava* is probably a printer's error.

Antennaria Guava, Cke.

Vize, Grev. **5**: 110. *d.* March 1877.

Hark. & Moore, Cat. Pac. Fung. 31. Feb. 1880. Hawaii.

Sacc. Syll. **1**: 81. *d.* 13 June 1882.

Antennularia pinophila, (Nees) n. n.

NOTE. This name was changed to *pithyophila* by Fries and Saccardo places the species in the genus *Hormiscium.*

Antennaria pinophila, Nees.

Lea, Cat. Pl. Cin. 77. *d.* 1849 and Jour. Cin. Soc. **5**: 217 (21), *d.* Dec. 1882.

James, Jour. Cin. Soc. **2**: 68 (27). April 1879.

Kellerm. & Werner, Geol. Ohio **7**[2]: 353. Jan. 1895.

Antennularia rectangularis, (Sacc.) n. n.

Antennaria rectangularis, Sacc. [1904.

Sacc., Pk. & Trel., Harriman Alaska Exp. **5**: 34. *d. pl. 3, f. 9.* 5 April

Sacc. Syll. **17**: 559. *d.* 25 May 1905.

Antennularia Robinsonii, (B. & Mont.) Wildeman.
Bomm. & Rous. in Durand & Pittier, Bull. Soc. Bot. Belg. **35**[1]: 158. 1896. Cent. Amer.
Antennaria Robinsonii, B. & Mont.
Cockerell, Bull. Torr. Bot. Club **20**: 296. 15 July 1893. West Indies.

Antennularia semiovata, (B. & Br.) n. n.
Antennaria semiovata, B. & Br.
B. Grev. **4**: 161 (199). June 1876.
Underw. & Earle, Bull. Ala. Exp. Sta. 80: 182. 28 June 1897.
Earle in Mohr, Contr. U. S. Nat. Herb. **6**: 168. 31 July 1901.

Antennularia? tenuis, Earle.
Earle, Bull. N. Y. Bot. Gard. **3**: 302. *d.* 30 June 1904. West Indies.

Anthina ceranoides, Lk.

NOTE. The following is the only reference we have. The species is assigned by Schweinitz to Link but we do not know where it was published.

S. Syn. Am. Bor. 305. no. 3073. 1834.

Anthina flammea, Fr.
Eby, Fungi of Lancaster Co. 10. 1894.

Anthina plumosa, Fr.
See ***Pterula plumosa,*** (S.) Fr.

Anthostoma Aceris, Cke.
See ***Valsaria Aceris,*** (C. & E.) Sacc.

Anthostoma adustum, (C. & P.) Sacc.
Sacc. Syll. **1**: 307. *d.* 13 June 1882.
Ell. & Ev. Pyren. 580. *d.* May 1892.
Diatrype adusta, C. & P.
Pk. Rept. N. Y. Mus. **29**: 58. *d.* 1878.
Cke. Grev. **14**: 17. Sept. 1885.
Fuckelia adusta, Cke.
Cke. Grev. **12**: 52. Dec. 1883.

Anthostoma amplisporum, (Cke.) Berl. & Vogl.
Berl. & Vogl. in Sacc. Syll. Add. **1–4**: 46. *d.* 31 Dec. 1886.
Sacc. Syll. **9**: 522. *d.* 15 Sept. 1891.
Ell. & Ev. Pyren. 583. *d.* May 1892.
Fuckelia amplispora, Cke.
Cke. Grev. **12**: 51. *d.* Dec. 1883.

Anthostoma amygdalinum, (Cke.) Sacc.
Sacc. Syll. **1**: 308. *d.* 13 June 1882.
Ell. & Ev. Pyren. 580. *d.* May 1892.
Lindau in Engler & Prantl, Pflanzenfam. **1**[1]: 456. Feb. 1897.
Melanconis amygdalina, Cke.
C. & E. Grev. **5**: 55. *d. pl. 81, f. 4.* Dec. 1876.
Cke. Proc. Phil. Acad. **1877**: 127. *d.* 22 May 1877.
Fuckelia amygdalina, Cke.
Cke. Grev. **12**: 52. Dec. 1883.

Anthostoma atrofuscum, Berl. & Vogl.
See ***Rosellinia atrofusca,*** (B. & C.) Starb.

Anthostoma atropunctatum, (S.) Sacc.

NOTE. Although we retain this species in the genus *Anthostoma* its generic position seems to us to be uncertain. It does not seem to us to be a *Hypoxylon* and it is very doubtful whether it is an *Anthostoma*. In some respects it resembles *Nummularia*.

Sacc. Syll. **1**: 295. *d.* 13 June 1882.
Rehm, Hedw. **21**: 133. *d.* Sept. 1882.

Cke. Grev. **11**: 132. June 1883.
*Wint. Fung. Eur. *3159*. 1884.
Wint. & Demet. Hedw. **24**: 191 (15). Oct. 1885.
Kellerm. & Werner, Geol. Ohio **7**[2]: 354. Jan. 1895.
Underw. & Earle, Bull. Ala. Exp. Sta. 80: 186. 28 June 1897.
Earle in Mohr, Contr. U. S. Nat. Herb. **6**: 177. 31 July 1901.
*Rehm, Ascomyceten *1596*. May 1905.
Sphæria atropunctata, S.
S. Syn. Car. 31 (5) no. 44. *d.* 1822.
Fr. S. M. **2**: 351. *d.* 1823.
Spr. in L. Syst. Veg. 16 ed. **4**[1]: 388. *d.* 1827.
S. Syn. Am. Bor. 194 no. 1232. 1834.
Lea, Cat. Pl. Cin. 74. 1849.
*Rav. Fung. Car. **1**: *62*. 1852.
Curr. Tr. Linn. Soc. **22**: 269. *pl. 46, f. 70*. 1859.
Curr. Tr. Linn. Soc. **25**: 243. 1866.
Sphæria tephromelas, Spreng. Herb.
Fr. S. M. **2**: 351. 1823.
Diatrype atropunctata, M. A. Curtis.
Curtis, M. A., Bot. N. Car. 140. 1867.
Featherman, Bot. Surv. La. **1871**: 159. 1872.
Pk. Rept. N. Y. Mus. **25**: 101. Sept. 1873.
B. Grev. **4**: 95 (165). March 1876.
Cke. Ann. N. Y. Acad. **1**: 185. May 1878.
Cke. Grev. **6**: 144. June 1878.
*Rav. Fung. Am. *90*. 1878.
James, Jour. Cin. Soc. **2**: 68 (27). April 1879.
Cke. Grev. **8**: 118. March 1880.
Pk. in Day's Cat., Bull. Buf. Soc. **4**: 229 (165). 1883.
Hypoxylon atropunctatum, Frost's Cat.
Frost in Cat. Pl. Amherst 94. 1875.
*Ell. N. A. F. *576*. 1881.
Cke. Grev. **11**: 132. *d.* 138. June 1883.
Sacc. Syll. **2**: Add. p. xxiv. 13 June 1883.
Cke. Grev. **13**: 15. Sept. 1884.
Cragin, Bull. Wash. Lab. **1**: 71. Jan. 1885.
Calkins, Jour. Myc. **2**: 127. Nov. 1886.
Cobb, List Pl. Amherst 45. 1887.
Langlois, Cat. Pl. La. 30. 1887.
Ell. & Ev. Jour. Myc. **4**: 89. *d.* Sept. 1888.
Ell. in Cat. Pl. N. J. 538. 1889.
Sacc. Syll. **9**: 564. 15 Sept. 1891.
Ell. & Ev. Pyren. 650. *d.* May 1892.
Underw. Proc. Ind. Acad. **1893**: 41. Aug. 1894.
Kellerm. & Werner, Geol. Ohio **7**[2]: 355. Jan. 1895.
*Ell. & Ev. Fung. Columb. *1135*. July 1897.
Rehm, Ann. Myc. **2**: 176. *d.* 15 April 1904.

Anthostoma cercidicolum, (B. & C.) Sacc.
Sacc. Syll. **1**: 306. *d.* 13 June 1882.
Ell. & Ev. Pyren. 582. *d.* May 1892.
Diatrype cercidicola, B. & C.
Pk. Rept. N. Y. Mus. **25**: 101. *d.* Sept. 1873.
Cke. Grev. **14**: 16. Sept. 1885.
Hypoxylon suborbiculare, Pk.
Pk. Rept. N. Y. Mus. **30**: 63. *d.* Sept. 1878.
Sacc. Syll. **1**: 356. *d.* 13 June 1882.
Pk. in Day's Cat., Bull. Buf. Soc. **4**: 227 (163). 1883.

Ell. & Ev. Jour. Myc. **4**: 67. *d.* July 1888.
Ell. & Ev. Pyren. 638. *d.* May 1892.
Fuckelia cercidicola, Cke.
Cke. Grev. **12**: 52. Dec. 1883.

Anthostoma Closterium, B. & C.
See ***Anthostomella Closterium,*** (B. & C.) Sacc.

Anthostoma discincolum, (S.) Sacc.

NOTE. There is no reason to suppose that this species founded on *Sphæria discincola,* S. is really an Anthostoma but whether it is the same as *Sphæria discreta,* S. is open to doubt. On the strength of Schweinitzian material examined by Currey and Cooke, *S. discincola* and *S. discreta* are the same and in that case the former name has priority. Cooke, however, retains both names whence it might be inferred that he had doubts as to whether the material examined by him was really the *S. discincola* of Schweinitz Syn. Car. Tulasne places the *S. discincola* of Herb. Mus. Paris received from Schweinitz in *Nummularia discreta* but believes that it is not the true *S. discincola* of S. Syn. Car.

We are obliged therefore to consider the *S. discincola,* S. as a doubtful species which on the authority of Schweinitz and Fries is distinct from *S. discreta* but whose exact characters can not be ascertained at the present time. It is here referred to *Nummularia discreta* as a doubtful synonym since the commonly accepted name *discreta* should not be superseded by the very uncertain *discincola* published earlier.

Anthostoma dryophilum, (Curr.) Sacc.
Ell. & Ev. Pyren. 581. *d.* May 1892.
Pk. Rept. N. Y. Mus. **55**: 957. Nov. 1902. [Bull. **10**: no. 54.]
Diatrype dryophila, Curr.
Cke. Ann. N. Y. Acad. **1**: 185. May 1878.

Anthostoma dryophilum, (Curr.) Sacc. var. **minor,** (Cke.) Rehm.
Rehm, Hedw. **21**: 134. Sept. 1882.
Ell. & Ev. Pyren. 581. *d.* May 1892.
Diatrype dryophila, Curr., var. ***minor,*** Cke.
C. & E. Grev. **5**: 32. *d. pl. 75, f. 13.* Sept. 1876.
*Ell. N. A. F. *87.* 1878.

Anthostoma Ellisii, Sacc.
See ***Anthostoma microsporum,*** Karst.

Anthostoma Ellisii, Sacc., var. **exudans,** Pk.
See ***Anthostoma microsporum,*** Karst., var. ***exudans,*** (Pk.) n. n.

Anthostoma exutans, Sacc.
See ***Nummularia exutans,*** Cke.

Anthostoma flavo-viride, Ell. & Holw.
Arth. & Holw. Bull. Minn. Surv. 3: 32. *d.* 1 Oct. 1887.
Sacc. Syll. **9**: 515. *d.* 15 Sept. 1891.
Ell. & Ev. Pyren. 578. *d.* May 1892.
Lindau in Engler & Prantl, Pflanzenfam. 1^1: 456. Feb. 1897.

Anthostoma formosum, Ell. & Ev.
Ell. & Ev. Proc. Phil. Acad. **1894**: 344. *d.* 30 Nov. 1894.
Sacc. Syll. **11**: 283. *d.* July 1895.
Smyth, Tr. Kans. Acad. **15**: 68. March 1898.
Rehm, Ann. Myc. **2**: 176. *d.* 15 April 1904.

Anthostoma gastrinum, (Fr.) Sacc.
Sacc. Syll. **1**: 303. *d.* 13 June 1882.
*Ell. & Ev. N. A. F. *2513.* Feb. 1891.
Sacc. Syll. **9**: 523. 15 Sept. 1891.
Ell. & Ev. Pyren. 579. *d.* May 1892.
*Ell. & Ev. Fung. Columb. *124.* 1893.
Lindau in Engler & Prantl, Pflanzenfam. **1**[1]: 456. Feb. 1897.
Sphæria irregularis, Sow.
S. Syn. Am. Bor. 196 no. 1259. 1834.
Sphæria gastrina, Fr.
S. Syn. Am. Bor. 199 no. 1311. 1834.
Diatrype gastrina, Rav. Fung. Car.
*Rav. Fung. Car. **5**: *58.* 1860.
Melogramma gastrinum, Tul.
Cke. Handbook 803. *d.* 1871.
B. Grev. **4**: 97 (167). March 1876.
Valsa gastrina, M. A. Curtis.
Curtis, M. A., Bot. N. Car. 141. 1867.
Fuckelia gastrina, Cke.
Cke. Grev. **13**: 108. June 1885.

Anthostoma? gigasporum, (Cke. & Hark.) Berl. & Vogl.
Berl. & Vogl. in Sacc. Syll. Add. **1–4**: 47. *d.* 31 Dec. 1886.
Sacc. Syll. **9**: 520. *d.* 15 Sept. 1891.
Ell. & Ev. Pyren. 578. *d.* May 1892.
Sphæria gigaspora, Cke. & Hark.
Cke. & Hark. Grev. **13**: 18. *d.* Sept. 1884.
Hark. Bull. Cal. Acad. **1**: 174. 7 March 1885.
Xylosphæria gigaspora, Cke.
Cke. Grev. **17**: 85. June 1889.

Anthostoma grandineum, (B. & Rav.) Sacc.
Sacc. Syll. **1**: 299. *d.* 13 June 1882.
Ell. & Ev. Pyren. 577. *d.* May 1892.
*Ell. & Ev. Fung. Columb. *324.* 1894.
Diatrype grandinea, B. & Rav.
*Rav. Fung. Car. **4**: *40.* 1855.
B. Grev. **4**: 95 (165) no. 851[b]. *d.* March 1876.
*Ell. N. A. F. *494.* 1880.
Ell. in Cat. Pl. N. J. 535. 1889.
Fuckelia grandinea, Cke.
Cke. Grev. **12**: 53. Dec. 1883.
Camarops grandinea, Cke.
Cke. Grev. **13**: 108. June 1885.

Anthostoma hiascens, (Fr.) Nits.
Ell. & Ev. Pyren. 742. *d.* May 1892.
Sphæria hiascens, Fr.
S. Syn. Am. Bor. 216 no. 1623. 1834.

Anthostoma hypophlæum, Sacc.
See ***Nummularia hypophlœa,*** (B. & Rav.) Cke.

Anthostoma insidens, (S.) Berl.
See ***Hypoxylon insidens,*** (S.) Ell. & Ev.

Anthostoma melanotes, (B. & Br.) Sacc.
Farl. & Seymour, H. I. 123. Sept. 1890.
Ell. & Ev. Pyren. 577. *d.* May 1892.

Sphæria melanotes, B. & Br.
C. & E. Grev. **4**: 179. June 1876.

Anthostoma micrœcium, Ell. & Ev.
Ell. & Ev. Proc. Phil. Acad. **1894**: 344. *d.* 30 Nov. 1894.
Sacc. Syll. **11**: 283. *d.* July 1895.
Millsp. & Nutt. Publ. Field Columb. Mus. Bot. **1**: 135. *d.* Jan. 1896.

Anthostoma microplacum, Sacc.
See ***Nummularia microplaca***, (B. & C.) Cke.

Anthostoma microsporum, Karst.
*Karst. Fung. Fenn. *860. d.* 1869.
Pk. Rept. N. Y. Mus. **43**: 80 (34). Oct. 1890.
Ell. & Ev. Pyren. 582. *d.* May 1892.
Harvey, Bull. Torr. Bot. Club **23**: 56. 29 Feb. 1896.
Ricker, Univ. of Maine Studies 3: 32. 30 April 1902.
Diatrype microspora, Ell.
Ell. Bull. Torr. Bot. Club **8**: 74. *d.* July 1881.
Cke. Grev. **14**: 16. Sept. 1885.
Anthostoma Ellisii, Sacc.
Sacc. Syll. **1**: 308. *d.* 13 June 1882.
Ricker, Univ. of Maine Studies 3: 32. 30 April 1902.
Fuckelia Ellisii, Cke.
Cke. Grev. **12**: 52. Dec. 1883.

Anthostoma microsporum, Karst., var. **exudans**, (Pk.) n. n.

NOTE. In Peck's Report, 188, the name for this species was originally printed *Valsa exudans* but in copies of the Report sent out later the name was corrected to *Anthostoma Ellisii*, Sacc., var. *exudans*.

Valsa exudans, Pk.
Pk. Rept. N. Y. Mus. **40**: 67. *d.* May 1888.
Anthostoma Ellisii, Sacc., var. ***exudans***, Pk.
Pk. Rept. N. Y. Mus. **40**: 67. *d.* May 1888.
Sacc. Syll. **9**: 521. *d.* 15 Sept. 1891.

Anthostoma mortuosum, (Ell.) Sacc.
Sacc. Syll. **2**: Add. p. xiii. *d.* 13 June 1883.
Hark. Bull. Cal. Acad. **1**: 165. 7 March 1885.
Sacc. Syll. **9**: 519. *d.* 15 Sept. 1891.
Sphæria mortuosa, Ell.
Ell. Bull. Torr. Bot. Club **9**: 73. *d.* June 1882.
*Ell. N. A. F. *897.* 1882.
Xylosphæria mortuosa, Cke.
Cke. Grev. **17**: 86. June 1889.

Anthostoma Ontariense, Ell.
Ell. & Ev. Proc. Phil. Acad. **1890**: 228. *d.* 1890.
Sacc. Syll. **9**: 521. *d.* 15 Sept. 1891.
Ell. & Ev. Pyren. 581. *d. pl. 34, f. 13–16.* May 1892.
Pk. Rept. N. Y. Mus. **46**: 116 (36). Dec. 1893.
*Shear, N. Y. Fungi *347.* March 1896.
Lindau in Engler & Prantl, Pflanzenfam. 1^1: 456. *f. 275 C, D.* Feb. 1897.

Anthostoma Oreodaphnes, Cke.
See ***Anthostomella Oreodaphnes***, (Cke. & Hark.) Berl. & Vogl.

Anthostoma ostiolatum, Cke.
See ***Anthostomella ostiolata***, Ell. & Ev.

Anthostoma phæospermum, (Ell.) Sacc.
Sacc. Syll. **2**: Add. p. xiv. *d.* 13 June 1883.
Sacc. Syll. **9**: 520. *d.* 15 Sept. 1891.
Ell. & Ev. Pyren. 581. *d.* May 1892.
Diatrype phæosperma, Ell.
*Ell. & Ev. N. A. F. *1557.* 1886.
Fuckelia phæosperma, Cke.
Cke. Grev. **12**: 52. Dec. 1883.

Anthostoma pholidigena, Cke.
See ***Anthostomella pholidigena,*** Ell.

Anthostoma picaceum, (C. & E.) Cke.

NOTE. The *Sphæria vexata,* C. & E. of N. A. F. *183* is referred by Ellis in index to N. A. F. to *Sphæria picacea,* C. & E. and again in North American Pyrenomycetes 578 to *Anthostoma picaceum.*

The specimen no. *183* in our copy of N. A. F. however has hyaline, allantoid spores and belongs rather to *Sphæria vexata,* C. & E. than to *Sphæria picacea,* C. & E.

Cke. Grev. **17**: 90. June 1889.
Ell. & Ev. Pyren. 578. *d.* May 1892.
Sphæria picacea, C. & E.
C. & E. Grev. **7**: 9. *d.* Sept. 1878.
Anthostomella picacea, Sacc.
Sacc. Syll. **1**: 293. *d.* 13 June 1882.
Ell. in Cat. Pl. N. J. 527. 1889.
Xylosphæria picacea, Cke.
Cke. Grev. **17**: 86. June 1889.

Anthostoma polynesia, (B. & C.) Sacc.
Sacc. Syll. **1**: 298. *d.* 13 June 1882.
Ell. & Ev. Pyren. 579. *d.* May 1892.
Diatrype polynesia, B. & C.
Curtis, M. A., Bot. N. Car. 141. 1867.
Sphæria polynesia, B. & C.
B. Grev. **4**: 146 (184) no. 931. *d.* June 1876.
Xylosphæria polynesia, Cke.
Cke. Grev. **17**: 85. Jan. 1889.

Anthostoma pulviniceps, Pk.
Pk. in Ell. & Ev. Pyren. 578. *d.* May 1892.
Sacc. Syll. **11**: 283. *d.* July 1895.

Anthostoma rumpens, Sacc.
See ***Nummularia rumpens,*** Cke.

Anthostoma saprophilum, Ell. & Ev.
Martin, Jour. Myc. **3**: 43. *d.* April 1887.
Sacc. Syll. **9**: 518. *d.* 15 Sept. 1891.
Ell. & Ev. Pyren. 583. *d.* May 1892.
Xylosphæria saprophila, Cke.
Cke. Grev. **17**: 86. June 1889.

Anthostoma stomaticum, (Cke.) Berl. & Vogl.
Berl. & Vogl. in Sacc. Syll. Add. **1–4**: 47. *d.* 31 Dec. 1886.
Sacc. Syll. **9**: 516. *d.* 15 Sept. 1891.
Botryosphæria stomatica, Cke.
Cke. Grev. **13**: 102. *d.* 108. June 1885.
Ell. & Ev. Pyren. 548. *d.* May 1892.
Sphæria stomatica, S. in Herb. B.
Berl. & Vogl. in Sacc. Syll. Add. **1–4**: 47. 31 Dec. 1886.

Anthostoma sustentum, (Plowr.) Sacc.
Sacc. Syll. **1**: 300. *d.* 13 June 1882.
Ell. & Ev. Pyren. 579. *d.* May 1892.
Sphæria sustenta, Plowr.
Cke. Grev. **7**: 73. *d.* Dec. 1878.
Plowr. Grev. **8**: 73. Dec. 1879.
Hark. & Moore, Cat. Pac. Fung. 44. Feb. 1880.
Xylosphæria sustenta, Cke.
Cke. Grev. **17**: 85. June 1889.

Anthostoma tuberculòsum, (S.) Ell. & Ev.
Ell. & Ev. Pyren. 582. *d.* May 1892.
Sphæria tuberculosa, S.
S. Syn. Car. 43 (17) no. 164. *d.* 1822.
Fr. S. M. **2**: 477. *d.* 1823.
S. Syn. Am. Bor. 216 no. 1624. 1834.
Curtis, M. A., Bot. N. Car. 148. 1867.
Sacc. Syll. **2**: 419. *d.* 13 June 1883.
Xylosphæria tuberculosa, Cke.
Cke. Grev. **17**: 85. June 1889.

Anthostoma turgidum, (P.) Nits.
Pk. Rept. N. Y. Mus. **42**: 130 (34). Dec. 1889.
Ell. & Ev. Pyren. 580. *d.* May 1892.
Rehm, Hedw. Beibl. **34**: (165). 19 Oct. 1895.
Sphæria turgida, P.
Fr. S. M. **2**: 400. *d.* 1823.
S. Syn. Am. Bor. 202 no. 1359. 1834.
Valsa turgida, Fr.
Curtis, M. A., Bot. N. Car. 142. 1867.
Cke. Handbook 836. *d.* 1871.
Cke. Proc. Phil. Acad. **1877**: 122. *d.* 22 May 1877.

Anthostomella abdita, (B. & C.) Sacc.
Sacc. Syll. **1**: 290. *d.* 13 June 1882.
Sphæria abdita, B. & C.
B. & C. Jour. Linn. Soc. **10**: 388. *d.* 1869. West Indies.

Anthostomella albocincta, Ell. & Ev.
Ell. & Ev. Proc. Phil. Acad. **1895**: 424. *d.* Nov. 1895.
Sacc. Hedw. **35**: Rep. 7: xxvi. 25 Feb. 1896.
Sacc. & Syd. Syll. **14**: 502. *d.* 20 Aug. 1899.

Anthostomella Baptisiæ, (Cke.) Sacc.
Sacc. Syll. **1**: 285. *d.* 13 June 1882.
Cke. Grev. **18**: 28. Dec. 1889.
Ell. & Ev. Pyren. 420. *d.* May 1892.
Sphæria Baptisiæ, Cke.
Cke. Grev. **6**: 145. *d.* June 1878.
*Rav. Fung. Am. *200.* 1878.

Anthostomella brachystoma, Ell. & Ev.
Ell. & Ev. Bull. Wash. Lab. **1**: 5. *d.* Sept. 1884.
Berl. & Vogl. in Sacc. Syll. Add. **1–4**: 45. *d.* 31 Dec. 1886.
Sacc. Syll. **9**: 506. *d.* 15 Sept. 1891.
Ell. & Ev. Pyren. 419. *d.* May 1892.
Lindau in Engler & Prantl, Pflanzenfam. 1^1: 452. Feb. 1897.
Xylosphæria brachystoma, Cke.
Cke. Grev. **17**: 86. June 1889.

Anthostomella Cacti, Sacc.
See ***Vermicularia Cacti,*** (S.) Starb.

Anthostomella Closterium, (B. & C.) Sacc.
Sacc. Syll. **1**: 287. *d.* 13 June 1882.
Sacc. Syll. **2**: Add. p. xiii. *d.* 13 June 1883.
Sacc. Syll. **9**: 512. *d.* 15 Sept. 1891.
Ell. & Ev. Pyren. 422. *d.* May 1892.
Lindau in Engler & Prantl, Pflanzenfam. **1**[1]: 452. Feb. 1897.
Sphæria Closterium, B. & C.
Curtis, M. A., Bot. N. Car. 147. 1867.
B. Grev. **4**: 147 (185) no. 933. *d.* June 1876.
Pk. Rept. N. Y. Mus. **30**: 66. Sept. 1878.
Anthostoma Closterium, B. & C.
Cke. Grev. **17**: 90. June 1889.

Anthostomella Coffeæ, Delacroix.
Delacroix, Bull. Soc. Myc. Fr. **20**: 145. *d. pl. 9, f. B1 [illegible]*, 2, 3. 20 July 1904. Mexico.
Sacc. Syll. **17**: 594. *d.* 25 May 1905.

Anthostomella confusa, Sacc.
Sacc. Syll. **1**: 287. *d.* 13 June 1882.
Cke. Grev. **18**: 28. Dec. 1889.
Ell. & Ev. Pyren. 421. *d.* May 1892.
Sphæria appendiculosa, B. & C.
B. Grev. **4**: 153 (191) no. 967. *d.* June 1876.
Cke. Ann. N. Y. Acad. **1**: 187. May 1878.

Anthostomella cornicola, Ell. & Ev.
Ell. & Ev. Erythea **1**: 198. *d.* 2 Oct. 1893.
Sacc. Syll. **11**: 283. *d.* July 1895.

Anthostomella eliminata, (B. & C.) Sacc.
Sacc. Syll. **1**: 281. *d.* 13 June 1882.
Cke. Grev. **18**: 28. Dec. 1889.
Ell. & Ev. Pyren. 418. *d.* May 1892.
Underw. & Earle, Bull. Ala. Exp. Sta. 80: 186. *d.* 28 June 1897.
Earle in Mohr. Contr. U. S. Nat. Herb. **6**: 177. 31 July 1901.
Sphæria eliminata, B. & C.
B. Grev. **4**: 148 (186) no. 943. *d.* June 1876.

Anthostomella eructans, Ell. & Ev.
Fairman, Proc. Rochester Acad. **1**: 49. *d. pl. 4, f. 7. and 8.* Aug. 1890.
Sacc. Syll. **9**: 505. *d.* 15 Sept. 1891.
Ell. & Ev. Pyren. 420. *d.* May 1892.

Anthostomella hypsophila, Ell. & Ev.
Ell. & Ev. Proc. Phil. Acad. **1894**: 338. *d.* 30 Nov. 1894.
Sacc. Syll. **11**: 282. *d.* July 1895.

Anthostomella leucobasis, (Ell. & Martin) Sacc.
Sacc. Syll. **2**: Add. p. xii. *d.* 13 June 1883.
Cke. Grev. **18**: 28. Dec. 1889.
Sacc. Syll. **9**: 509. *d.* 15 Sept. 1891.
Ell. & Ev. Pyren. 418. *d.* May 1892.
*Ell. & Ev. Fung. Columb. *722*. 24 April 1895.
Sphæria leucobasis, Ell. & Martin.
Ell. & Martin, Am. Nat. **16**: 809. *d.* Oct. 1882.
*Ell. N. A. F. *1199*. 1884.
Ell. & Martin, Jour. Myc. **1**: 99. *d.* Aug. 1885 and Hedw. **25**: 42. Oct. 1886.
Calkins, Jour. Myc. **3**: 58. May 1887.

Anthostomella limitata, Sacc.
Pk. Rept. N. Y. Mus. **42**: 130 (34). Dec. 1889.

Anthostomella Ludoviciana, Ell. & Langlois.
Ell. & Ev. Proc. Phil. Acad. **1890**: 228. *d.* 1890.
Sacc. Syll. **9**: 509. *d.* 15 Sept. 1891.
Ell. & Ev. Pyren. 419. *d.* May 1892.

Anthostomella Magnoliæ, Ell. & Ev.
Ell. & Ev. Jour. Myc. **4**: 122. *d.* Dec. 1888.
Sacc. Syll. **9**: 511. *d.* 15 Sept. 1891.
Ell. & Ev. Pyren. 418. *d. pl. 31, f. 1–3.* May 1892.

Anthostomella mammoides, Ell. & Ev.
Ell. & Ev. Proc. Phil. Acad. **1893**: 139. *d.* 28 Feb. 1893.
Sacc. Syll. **11**: 282. *d.* July 1895.
Ell. & Ev. Bull. Torr. Bot. Club **27**: 63. *d.* 17 Feb. 1900.

Anthostomella melanosticta, Ell. & Ev.
Ell. & Ev. Jour. Myc. **3**: 44. *d.* April 1887.
Langlois, Cat. Pl. La. 27. 1887.
Sacc. Syll. **9**: 510. *d.* 15 Sept. 1891.
Ell. & Ev. Pyren. 418. *d.* May 1892.
Lindau in Engler & Prantl, Pflanzenfam. **1**[1]: 452. Feb. 1897.

Anthostomella minor, Ell. & Ev.
Ell. & Ev. Jour. Myc. **3**: 43. *d.* April 1887.
Calkins, Jour. Myc. **3**: 70. June 1887.
*Ell. & Ev. N. A. F. *1965.* March 1888.
Sacc. Syll. **9**: 510. *d.* 15 Sept. 1891.
Ell. & Ev. Pyren. 417. *d.* May 1892.

Anthostomella nigro-annulata, (B. & C.) Sacc.
Sacc. Syll. **1**: 279. *d.* 13 June 1882.
Cke. Grev. **18**: 28. Dec. 1889.
Ell. & Ev. Pyren. 417. *d.* May 1892.
Sphæria nigro-annulata, B. & C.
*Rav. Fung. Car. **5**: *73.* 1860.
Curtis, M. A., Bot. N. Car. 148: 1867.
B. & C. Jour. Linn. Soc. **10**: 388. *d.* 1869.
B. Grev. **4**: 148 (186). June 1876.
*Ell. & Ev. N. A. F. *1672.* 1886.
Calkins, Jour. Myc. **3**: 58. May 1887.
Langlois, Cat. Pl. La. 34. 1887.

Anthostomella nigrotecta, (B. & Rav.) Sacc.
Sacc. Syll. **1**: 284. *d.* 13 June 1882.
Cke. Grev. **18**: 28. Dec. 1889.
Ell. & Ev. Pyren. 421. *d.* May 1892.
Sphæria nigrotecta, B. & Rav.
B. Grev. **4**: 155 (193) no. 972. *d.* June 1876.

Anthostomella Oreodaphnes, (Cke. & Hark.) Berl. & Vogl.
Berl. & Vogl. in Sacc. Syll. Add. **1–4**: 44. *d.* 31 Dec. 1886.
Sacc. Syll. **9**: 508. *d.* 15 Sept. 1891.
Ell. & Ev. Pyren. 419. *d.* May 1892.
Sphæria Oreodaphnes, Cke. & Hark.
Cke. & Hark. Grev. **13**: 18. *d.* Sept. 1884.
Hark. Bull. Cal. Acad. **1**: 174. 7 March 1885.
Anthostoma Oreodaphnes, Cke.
Cke. Grev. **17**: 90. June 1889.

Anthostomella ostiolata, Ell. & Ev.
Ell. & Ev. Bull. Torr. Bot. Club **11**: 42. *d.* April 1884.
Berl. & Vogl. in Sacc. Syll. Add. **1–4**: 45. *d.* 31 Dec. 1886.
Ell. in Cat. Pl. N. J. 527. 1889.
Sacc. Syll. **9**: 508. *d.* 15 Sept. 1891.

Ell. & Ev. Pyren. 420. *d.* May 1892.
Lindau in Engler & Prantl, Pflanzenfam. **1**[1]: 452. Feb. 1897.
Anthostoma ostiolatum, Cke.
Cke. Grev. **17**: 90. June 1889.

Anthostomella palmacea, (Cke.) Sacc.
Sacc. Syll. **1**: 291. *d.* 13 June 1882.
Sphæria palmacea, Cke.
Cke. in Vize, Grev. **7**: 12. *d.* Sept. 1878.
Hark. & Moore, Cat. Pac. Fung. 44. Feb. 1880.
Didymosphærella palmacea, Cke.
Cke. Grev. **18**: 29. Dec. 1889.
Didymosphæria palmacea, Ell. & Ev.
Ell. & Ev. Pyren. 329. *d.* May 1892.

Anthostomella perfidiosa, (De Not.) Sacc.
Hark. Bull. Cal. Acad. **2**: 445. 16 June 1887.

Anthostomella phæosticta, (B.) Sacc.
Sacc. Syll. **1**: 279. *d.* 13 June 1882.*
Sphæria phæosticta, B.
Curtis, M. A., Bot. N. Car. 145. 1867.

Anthostomella pholidigena, Ell.
*Ell. & Ev. N. A. F. *1664.* 1886.
Berl. & Vogl. in Sacc. Syll. Add. **1–4**: 44. *d.* 31 Dec. 1886.
Sacc. Syll. **9**: 506. *d.* 15 Sept. 1891.
Ell. & Ev. Pyren. 420. *d.* May 1892.
Sphæria pholidigena, Ell.
Ell. Bull. Torr. Bot. Club **10**: 54. *d.* May 1883.
Anthostoma pholidigena, Cke.
Cke. Grev. **17**: 90. June 1889.

Anthostomella picacea, Sacc.
See ***Anthostoma picaceum,*** (C. & E.) Cke.

Anthostomella rostrospora, (Gerard) Sacc.
Sacc. Syll. **1**: 287. *d.* 13 June 1882.
Cke. Grev. **18**: 28. Dec. 1889.
Ell. & Ev. Pyren. 421. *d.* May 1892.
Sphæria rostrospora, Gerard.
Gerard, Bull. Torr. Bot. Club. **5**: 26. *d.* June 1874 and Hedw. **13**: 111. *d.* July 1874.

Anthostomella sabalensioides, (Ell. & Martin) Sacc.
Sacc. Syll. **2**: Add. p. xiii. *d.* 13 June 1883.
Cke. Grev. **18**: 28. Dec. 1889.
Sacc. Syll. **9**: 512. *d.* 15 Sept. 1891.
Ell. & Ev. Pyren. 421. *d.* May 1892.
Sphæria sabalensioides, Ell. & Martin.
Ell. & Martin, Am. Nat. **16**: 810. *d.* Oct. 1882.
Ell. & Martin, Jour. Myc. **1**: 99. *d.* Aug. 1885 and Hedw. **25**: 42. *d.* Oct. 1886.
*Ell. & Ev. N. A. F. *1964.* March 1888.

Anthostomella sepelibilis, (B. & C.) Sacc.
Sacc. Syll. **1**: 281. *d.* 13 June 1882.
Cke. Grev. **18**: 28. Dec. 1889.
Ell. in Cat. Pl. N. J. 527. 1889.
Ell. & Ev. Pyren. 417. *d.* May 1892.
Sphæria sepelibilis, B. & C.
B. Grev. **4**: 146 (184) no. 928. *d.* June 1876.
C. & E. Grev. **5**: 94. March 1877.
*Ell. N. A. F. *1200.* 1884.

Anthostomella smilacinina, (Pk.) Sacc.
Sacc. Syll. **1**: 281. *d.* 13 June 1882.
Cke. Grev. **18**: 28. Dec. 1889.
Ell. & Ev. Pyren. 419. *d.* May 1892.
Sphæria smilacinina, Pk.
Pk. Rept. N. Y. Mus. **29**: 62. *d.* 1878.

Anthostomella Sphærotheca, Earle.
Earle, Bull. Torr. Bot. Club **25**: 360. *d.* 15 July 1898.
Earle in Mohr, Contr. U. S. Nat. Herb. **6**: 177. 31 July 1901.
Sacc. & Syd. Syll. **16**: 440. *d.* 1 Feb. 1902.

Anthostomella suberumpens, Ell. & Ev.
Ell. & Ev. Proc. Phil. Acad. **1894**: 338. *d.* 30 Nov. 1894.
Sacc. Syll. **11**: 282. *d.* July 1895.
Lindau in Engler & Prantl. Pflanzenfam. 1^1: 452. Feb. 1897.
Smyth, Tr. Kans. Acad. **15**: 67. March 1898.

Anthostomella thyridioides, Ell. & Ev.
Ell. & Ev. Jour. Myc. **9**: 167. *d.* 29 Oct. 1903.
Sacc. Syll. **17**: 595. *d.* 25 May 1905.

Anthracoidea, Bref.
See ***Cintractia,*** Cornu.

Anthracoidea Caricis, Bref.
See ***Cintractia Caricis,*** (P.) Magn.

Anthracoidea subinclusa, Bref.
See ***Cintractia subinclusa,*** (Koern.) Magn.

Anthracophyllum Nigrita, (Lév.) Kalchb.

NOTE. The genus *Anthracophyllum* is by some recent writers kept distinct from *Xerotus* but it is considered by Patouillard, Essai Tax. 146. 1900, to be merely a subgenus of *Xerotus*. If kept distinct it is not easy to state what are the generic characters. Hennings in Engler and Prantl, Pflanzenfam. 1^{1**}: 222. 1898 makes a distinction on the spores which in *Anthracophyllum* are said to be black and in *Xerotus* colorless; but according to Patouillard the spores in both cases are colorless.

Although we have never seen living material, in all the herbarium material which we have seen of *Xerotus Nigrita*, the type of *Anthracophyllum*, the spores were certainly not black nor even opaque. The generic distinction founded on the relative position of the stipe and pileus hardly seems to be of importance in this case as there are so many transitional stages. It seems to us better then to retain the name ***Xerotus Nigrita,*** Lév., *q. v.*

Anthurus borealis, Burt.

NOTE. The differences between the genera *Anthurus* and *Lysurus* are certainly slight and the variety *Klitzingii*, Henn. of *Anthurus borealis* is by him placed in the genus *Lysurus* in Hedw. Beibl. **41**: (173). Oct. 1902.

Burt, Mem. Boston Soc. **3**: 487–505. *d. pl. 49, f. 1–14. pl. 50, f. 15–18, 20–23.* Oct. 1894.
Sacc. Syll. **11**: 155. *d.* July 1895.
Burt, Bot. Gaz. **22**: 284. 20 Oct. 1896.
Burt, Bot. Gaz. **22**: 390. *d.* 23 Nov. 1896.
Pk. Rept. N. Y. Mus. **49**: 35 (21). 5 Nov. 1897.
Pk. Rept. N. Y. Mus. **50**: 132. 28 March 1898.
Fischer, E., in Engler & Prantl, Pflanzenfam. 1^{1**}: 288. *d. f. 136 A–D.* Sept. 1898.
Griffiths, Bull. Torr. Bot. Club **26**: 628. *f.* 22 Dec. 1899.
Underw. Moulds 133. 1899.
Fischer, E., Neue Denkschr. Schweiz. Ges. 36^3: 41. *d.* 1900.

Beardslee, Rept. Ohio Acad. **9**: 19. 1901.
Grout, Torreya **2**: 49. 12 April 1902.
Henn. Hedw. Beibl. **41**: (169), (171)–(173). *f 1–8.* 18 Oct. 1902.
Lloyd, Myc. Notes 183, 188. *f. 74, 75.* June 1904.
Lysurus borealis, Henn.
Sacc. Syll. **17**: 214. 25 May 1905.

Aphanomyces lævis, D By.
D By. in Pringsh. Jahrb. Wis. Bot. **2**: *pl. 20, f. 17, 18.* 1860.*
Humphrey, Tr. Am. Phil. Soc. **17**: 128. *d. pl. 20, f. 105–107.* 1893.

Aphanomyces scaber, D By.
D By. in Pringsh. Jahrb. Wis. Bot. **2**: *pl. 20, f. 14–16.* 1860.*
Humphrey, Tr. Am. Phil. Soc. **17**: 130. *d. pl. 20, f. 108–111.* 1893.

Apiospora apiospora, Underw. & Earle.
See ***Apiospora Montagnei,*** Sacc.

Apiospora Montagnei, Sacc.
Sacc. Syll. **1**: 539. *d.* 13 June 1882.
Cke. Grev. **18**: 13. Sept. 1889.
Ell. & Ev. Pyren. 311. *d.* May 1892.
Sphæria apiospora, Dur. & Mont.
Curtis, M. A., Bot. N. Car. 147. 1867.
B. Grev. **4**: 144 (182). June 1876.
*Rav. Fung. Am. *679.* 1882.
Detonina apiospora, O. Kuntze.
Kuntze, O., Rev. Gen. Pl. **2**: 851. 1891.
Apiosporium Montagnei, Tracy & Earle.
Tracy & Earle, Bull. Miss. Exp. Sta. 38: 140. May 1896.
Apiospora apiospora, Underw. & Earle.
Underw. & Earle, Bull. Ala. Exp. Sta. 80: 186. 28 June 1897.
Earle in Mohr, Contr. U. S. Nat. Herb. **6**: 174. 31 July 1901.

Apiospora Polypori, Ell. & Ev.
Ell. & Ev. Pyren. 311. *d.* May 1892.
Sacc. Syll. **11**: 301. *d.* July 1895.
Lindau in Engler & Prantl, Pflanzenfam. **1**[1]: 430. Feb. 1897.

Apiospora Rosenvingei, Rostr.
Rostr. Meddelelser om Groenl. **3**: 616. *d.* 1891.
Sacc. Syll. **11**: 301. *d.* July 1895.

Apiosporium elongatum, Underw. & Earle.
See ***Capnodium elongatum,*** B. & Desm.

Apiosporium? erysiphoides, Sacc. & Ell.
Sacc. Mich. **2**: 566. *d.* 1 Dec. 1882.
Sacc. Syll. **2**: 815. *d.* 13 June 1883.
*Ell. N. A. F. *1232.* 1884.
Ell. in Cat. Pl. N. J. 509. 1889.
Sacc. Syll. **9**: 375. *d.* 15 Sept. 1891.
Ell. & Ev. Pyren. *pl. 8, f. 6.* May 1892.
Detonina erysiphoides, O. Kuntze.
Kuntze, O., Rev. Gen. Pl. **2**: 851. 1891.

Apiosporium maximum, (S.) n. n.
Stilbospora maxima, S.
S. Syn. Car. 75 (49) no. 506. *d.* 1822.
Lk., L. Sp. Pl. ed. Willd. **6**[2]: 93. *d.* 1825.
Spreng. in L. Syst. Veg. 16 ed. **4**[1]: 569. *d.* 1827.
Apiosporium stilbosporeum, Fr.
Fr. S. M. **3**: 256. *d.* 1832.
Curtis, M. A., Bot. N. Car. 115. 1867.
Sacc. Syll. **1**: 33. *d.* 13 June 1882.

Exosporium maximum, S.
S. Syn. Am. Bor. 306 no. 3083. 1834.

Apiosporium Montagnei, Tracy & Earle.
See ***Apiospora Montagnei,*** (Dur. & Mont.) Sacc.

Apiosporium salicinum, (P.) Kze.

NOTE. Brick, 1900 states that this is *Capnodium salicinum,* Mont. See also *Apiosporium salicinum,* (P.) Kze. in Lindau, Engler & Prantl, Pflanzenfam. **1**[1]: 338. Jan. 1897.

S. Syn. Am. Bor. 265 no. 2402. 1834.
Brick, 3 Beih. Jahrb. Hamb. Wiss. Austalt. **17**: 230 (15). 1900.

Apiosporium, sp. indet.
Earle, Muhlenbergia **1**: 10. July 1901. West Indies.
Earle in Mohr, Contr. U. S. Nat. Herb. **6**: 168. 31 July 1901.

Apodachlya, Pringsh.
Thax. Bot. Gaz. **21**: 325. *d.* 17 June 1896 and Rev. Myc. **23**: 97. July 1901.

Apodachlya brachynema, (Hildebr.) Pringsh.
Thax. Bot. Gaz. **21**: 325. 17 June 1896 and Rev. Myc. **23**: 97. July 1901.

Apodachlya? completa, Humphrey.
Humphrey, Tr. Am. Phil. Soc. **17**: 137. *d. pl. 20, f. 119–121.* May 1893.
Schrt. in Engler & Prantl, Pflanzenfam. **1**[1]: 102. *d.* July 1893.
Sacc. Syll. **11**: 245. July 1895.

Apodachlya pirifera, Zopf.
Thax. Bot. Gaz. **21**: 325. 17 June 1896.

Aponectria inaurata, (B. & Br.) Sacc.
Sacc. Syll. **2**: 516. *d.* 13 June 1883.
Millsp. & Nutt. Publ. Field Columb. Mus. Bot. **1**: 144. *d.* Jan. 1896.
Nectria inaurata, B. & Br.
Pk. Rept. N. Y. Mus. **24**: 98. 1872.
Pk. in Day's Cat., Bull. Buf. Soc. **4**: 226 (162). 1883.
Cke. Grev. **12**: 106. June 1884.

Aporia obscura, Duby.
See ***Schizothyrium obscurum,*** (Duby) Sacc.

Aposphæria, B. emend. Sacc.

NOTE. We have kept here the *Aposphæria* of Berkeley emend. Sacc. as distinct from *Coniothyrium,* using the latter as limited by Saccardo, not Corda. The spores in *Aposphæria* are hyaline and in *Coniothyrium* dark as the two genera are distinguished by Saccardo, who has been followed by most recent writers.

Aposphæria acuta, B.

NOTE. In Cooke's Handbook of British Fungi 426 *Aposphæria acuta,* B. is given as occurring in the United States and on page 901 it is said to be the pycnidial stage of *Metasphæria coniformis,* (Fckl.) Sacc.

See ***Phoma acuta,*** (B.) Sacc.

Aposphæria allantella, Pk.
See ***Phoma allantella,*** Pk.

Aposphæria alpigena, Ell. & Ev.
Ell. & Ev. Proc. Phil. Acad. **1894**: 358. *d.* 30 Nov. 1894.
*Ell. & Ev. N. A. F. *3159.* Nov. 1894.
Sacc. Syll. **11**: 497. *d.* July 1895.
Allescher, Rabh. Krypt.-Fl. **1**[6]: 395. 1899.

Coniothyrium alpigenum, O. Kuntze.
Kuntze, O., Rev. Gen. Pl. **3²**: 459. 1898.

Aposphæria Amaranti, Ell. & Barthol.
Ell. & Barthol. Erythea **4**: 4. *d.* 2 Jan. 1896.
Sacc. & Lindau, Hedw. **36**: Rep. 7: xl. 30 April 1897.
Smyth, Tr. Kans. Acad. **15**: 70. March 1898.
Sacc. & Syd. Syll. **14**: 893. *d.* 20 Aug. 1899.

Aposphæria aranea, Pk.
Pk. Rept. N. Y. Mus. **42**: 126 (30). *d.* Dec. 1889.
Sacc. Syll. **10**: 209. *d.* 30 June 1892.
Jelliffe, Flora of Long Island 33. 1899.
Coniothyrium araneum, O. Kuntze.
Kuntze, O., Rev. Gen. Pl. **3²**: 459. 1898.

Aposphæria clypeata, (C. & E.) Sacc.
Sacc. Syll. **3**: 170. *d.* 15 Dec. 1884.
Ricker, Univ. of Maine Studies 3: 25. 30 April 1902.
Phoma clypeata, C. & E.
C. & E. Grev. **5**: 33. *d. pl.* 75, *f.* 10. Sept. 1876.
Ell. in Cat. Pl. N. J. 579. 1889.
Coniothyrium clypeatum, O. Kuntze.
Kuntze, O., Rev. Gen. Pl. **3²**: 459. 1898.

Aposphæria collabens, (B. & C.) Sacc.
Sacc. Syll. **3**: 176. *d.* 15 Dec. 1884.
Jones, H. L., Oberlin College Lab. Bull. 9: 5. 15 June 1898.
Sphæropsis collabens, B. & C.
Sprague, Proc. Boston Soc. **6**: 319. 1859.
B. Grev. **3**: 2 (67) no. 419. *d.* Sept. 1874.
Frost in Cat. Pl. Amherst 80. 1875.
Cobb, List Pl. Amherst 38. 1887.
Bennett, Cat. Pl. R. I. 86. 1888.
Coniothyrium collabens, O. Kuntze.
Kuntze, O., Rev. Gen. Pl. **3²**: 459. 1898.

Aposphæria complanata, B.

NOTE. In the Handbook of British Fungi 426 Cooke states that *Aposphæria complanata*, B. occurs in the United States and on page 903 he states that it is the pycnidial stage of *Metasphæria complanata*, (Tode) Sacc.

See ***Phoma complanata***, (Tode) Desm.

Aposphæria condensata, Ell. & Ev.
Ell. & Ev. Bull. Torr. Bot. Club **24**: 463. *d.* 30 Oct. 1897.
Lindau & Syd. Hedw. **37**: Beibl. 7: xliii. 9 April 1898.
Sacc. & Syd. Syll. **14**: 893. *d.* 20 Aug. 1899.

Aposphæria conica, Sacc. sec. Pk.
Pk. Rept. N. Y. Mus. **40**: 60. May 1888.

Aposphæria cornuta, Cke.
Ell. in Cat. Pl. N. J. 579. 1889.

Aposphæria elevata, (Pk.) Berl. & Vogl.
Berl. & Vogl. in Sacc. Syll. Add. **1–4**: 315. *d.* 31 Dec. 1886.
Sacc. Syll. **10**: 209. *d.* 30 June 1892.
Phoma elevata, Pk.
Pk. Rept. N. Y. Mus. **38**: 95. *d.* 1885.
Coniothyrium elevatum, O. Kuntze.
Kuntze, O., Rev. Gen. Pl. **3²**: 459. 1898.

Aposphæria fibricola, (B.) Sacc.
Sacc. Syll. **3**: 176. *d.* 15 Dec. 1884.
*Ell. & Ev. N. A. F. *2573.* 1891.
Allescher, Rabh. Krypt.-Fl. **1**^{6}: 386. *d.* 388. *d.* 1899.
Phoma fibricola, B.
B. Grev. **2**: 83 (59). Dec. 1873.
C. & E. Grev. **6**: 2. Sept. 1877.
Ell. in Cat. Pl. N. J. 578. 1889.
Coniothyrium fibricolum, O. Kuntze.
Kuntze, O., Rev. Gen. Pl. **3**^{2}: 459. 1898.

Aposphæria fibriseda, (C. & E.) Sacc.
Sacc. Syll. **3**: 173. *d.* 15 Dec. 1884.
Phoma fibriseda, C. & E.
C. & E. Grev. **6**: 2. *d.* Sept. 1877.
Ell. in Cat. Pl. N. J. 579. 1889.
Coniothyrium fibrisedum, O. Kuntze.
Kuntze, O., Rev. Gen. Pl. **3**^{2}: 459. 1898.

Aposphæria ? hemisphærica, (A. & S.) Sacc.
Ricker, Univ. of Maine Studies 3: 25. 30 April 1902.
Sphæria hemisphærica, A. & S.
S. Syn. Car. 47 (21) no. 230. 1822.
Sphæronema hemisphæricum, Fr.
S. Syn. Am. Bor. 247 no. 2140. 1834.
Curtis, M. A., Bot. N. Car. 115. 1867.

Aposphæria herbicola, Ell. & Ev.
Ell. & Ev. Erythea **2**: 24. *d.* 9 Feb. 1894.
Sacc. Syll. **11**: 497. *d.* July 1895.
Coniothyrium herbicola, O. Kuntze.
Kuntze, O., Rev. Gen. Pl. **3**^{2}: 459. 1898.

Aposphæria hysterella, Sacc.
Sacc. Syll. **3**: 170. *d.* 15 Dec. 1884.
Allescher, Rabh. Krypt.-Fl. **1**^{6}: 391. 1899.
Ricker, Univ. of Maine Studies 3: 25. 30 April 1902.
Sphæronema subtile, B. & C.
Russell, J. L., Proc. Essex Inst. **1**: 194 (7). 1856.
Sprague, Proc. Boston Soc. **6**: 319. 1859.
B. Grev. **2**: 178 (63) no. 407. *d.* June 1874.
Coniothyrium hysterellum, O. Kuntze.
Kuntze, O., Rev. Gen. Pl. **3**^{2}: 459. 1898.

Aposphæria Kansensis, Ell. & Ev.
Ell. & Ev. Erythea **2**: 24. *d.* 9 Feb. 1894.
Sacc. Syll. **11**: 497. *d.* July 1895.
Allescher, Rabh. Krypt.-Fl. **1**^{6}: 392. 1899.
Coniothyrium Kansense, O. Kuntze.
Kuntze, O., Rev. Gen. Pl. **3**^{2}: 459. 1898.

Aposphæria librincola, (Cke. & Hark.) Sacc.
Sacc. Syll. **3**: 173. *d.* 15 Dec. 1884.
Phoma librincola, Cke. & Hark.
Cke. & Hark. Grev. **9**: 82. *d.* March 1881.
*Ell. N. A. F. *731.* 1882.
Cke. & Hark. Bull. Cal. Acad. **1**: 14. Feb. 1884.
Coniothyrium librincola, O. Kuntze.
Kuntze, O., Rev. Gen. Pl. **3**^{2}: 459. 1898.

Aposphæria macrosperma, (Cke. & Hark.) Sacc.
Sacc. Syll. **3**: 174. *d.* 15 Dec. 1884.

Sphæropsis macrosperma, Cke. & Hark.
Cke. & Hark. Grev. **12**: 93. *d.* June 1884.
Hark. Bull. Cal. Acad. **1**: 170. 7 March 1885.
Coniothyrium macrospermum, O. Kuntze.
Kuntze, O., Rev. Gen. Pl. **3²**: 459. 1898.

Áposphæria minutula, (Pk.) Sacc.
Sacc. Syll. **3**: 176. *d.* 15 Dec. 1884.
Coniothyrium minutulum, Pk.
Pk. Bot. Gaz. **5**: 33. *d.* March 1880.
Coniothyrium minutulum, O. Kuntze.
Kuntze, O., Rev. Gen. Pl. **3²**: 459. 1898.

Aposphæria nucicola, Ell. & Ev.
Ell. & Ev. Bull. Torr. Bot. Club. **24**: 287. *d.* 29 June 1897.
Lindau & Syd. Hedw. **37**: Beibl. 7: xliii. 9 April 1898.
Sacc. & Syd. Syll. **14**: 894. *d.* 20 Aug. 1899.

Aposphæria Ohiensis, Ell. & Ev.
Ell. & Ev. Proc. Phil. Acad. **1895**: 431. *d.* Nov. 1895.
Sacc. Hedw. **35**: Rep. 7: xli. 25 Feb. 1896.
Sacc. & Syd. Syll. **14**: 894. *d.* 20 Aug. 1899.
Coniothyrium Ohiense, O. Kuntze.
Kuntze, O., Rev. Gen. Pl. **3²**: 459. 1898.

Aposphæria Oxybaphi, Ell. & Ev.
Ell. & Ev. Erythea **2**: 24. *d.* 9 Feb. 1894.
Sacc. Syll. **11**: 498. *d.* July 1895.
Coniothyrium Oxybaphi, O. Kuntze.
Kuntze, O., Rev. Gen. Pl. **3²**: 459. 1898.

Aposphæria Petersii, (B. & C.) Sacc.
Sacc. Syll. **3**: 176. *d.* 15 Dec. 1884.
Underw. & Earle, Bull. Ala. Exp. Sta. 80: 163. *d.* 28 June 1897.
Phoma Petersii, B. & C.
B. Grev. **2**: 81 (58) no. 377. *d.* Dec. 1873.
Coniothyrium Petersii, O. Kuntze.
Kuntze, O., Rev. Gen. Pl. **3²**: 459. 1898.

Aposphæria pezizoides, Ell. & Ev.
Ell. & Ev. Proc. Phil. Acad. **1894**: 358. *d.* 30 Nov. 1894.
*Ell. & Ev. N. A. F. *3158.* Nov. 1894.
*Ell. & Ev. Fung. Columb. *570.* 1894.
Sacc. Syll. **11**: 497. *d.* July 1895.
Millsp. & Nutt. Publ. Field Columb. Mus. Bot. **1**: 108. *d.* Jan. 1896.
Allescher, Rabh. Krypt.-Fl. **1⁶**: 382, 388. 1899.
Coniothyrium pezizoides, O. Kuntze.
Kuntze, O., Rev. Gen. Pl. **3²**: 459. 1898.

Aposphæria Rhododendri, (S.) Sacc.
Sacc. Syll. **3**: 171. *d.* 15 Dec. 1884.
Jacz. Nouv. Mem. Soc. Imp. Nat. Mosc. **15**: 355. *d.* 1898.
Sphæronema Rhododendri, S.
S. Syn. Am. Bor. 247. no. 2141. *d.* 1834.
Coniothyrium Rhododendri, O. Kuntze.
Kuntze, O., Rev. Gen. Pl. **3²**: 459. 1898.

Aposphæria subtilis, (Fr.) Sacc.
Sacc. Syll. **3**: 171. *d.* 15 Dec. 1884.*
Sphæronema subtile, Fr.
Pk. Rept. N. Y. Mus. **24**: 85. 1872.
Pk. in Dav's Cat., Bull. Buf. Soc. **4**: 198 (134). 1883.
Coniothyrium subsubtile, O. Kuntze.
Kuntze, O., Rev. Gen. Pl. **3²**: 460. 1898.

Aposphæria turmalis, Ell. & Ev.
Ell. & Ev. Jour. Myc. **8**: 63. *d.* 30 June 1902.

Aposphæria, sp. indet.
Stevens, F. L., Rept. Ohio Acad. **5**: 63. 1897.
Sturgis, Rept. Conn. Exp. Sta. **24**: 288. 1901.

Appendicularia, Pk.
See ***Stigmatomyces,*** Karst.

Appendicularia entomophila, Pk.
See ***Stigmatomyces entomophila,*** (Pk.) Thax.

Appendiculina, Berl.
See ***Stigmatomyces,*** Karst.

Appendiculina entomophila, Berl.
See ***Stigmatomyces entomophila,*** (Pk.) Thax.

Apyrenium lignatile, Fr.
Johnson, Bull. Minn. Acad. **1**: 283. 1877 and Rept. Minn. Surv. **5**: 81. 1877.
Somers, Tr. N. Scot. Inst. **7**: 465. 1890.
MacKay, Tr. N. Scot. Inst. **11**: 139. Aug. 1904.

Arachnion, S.

NOTE. Brongniart in Essai d'une Classification Nat. des Champ. places *Acinophora* of Rafinesque as a synonym of *Arachnion,* in which he has been followed by some later writers. Brongniart remarks however that it is impossible to tell from the description what *Acinophora* really is, an opinion in which we quite concur.

S. Syn. Car. 59 (33). *d.* 1822.
Fr. S. M. **2**: 303. *d.* 1823.
Fr. S. O. V. **1**: 131. *d.* 1825.
Spreng. in L. Syst. Veg. 16. ed. **4**[1]: 378. *d.* 1827.
Nees & Henry, Syst. 1: 68. *d.* 1837.
Endl. Gen. Pl. 29. 1840.
Cda. Icon. **5**: 25. *d.* 1842.
Fr. Summa **1**: 443. *d.* 1849.
Tul. Fungi Hypogæi 181. 1851.
De Toni in Sacc. Syll. **7**: 150. *d.* 15 March 1888.
Fischer, E., in Engler & Prantl, Pflanzenfam. **1**[1**]: 339. *d.* Dec. 1899.
White, Bull. Torr. Bot. Club **29**: 252. 26 May 1902.
Lloyd, Myc. Notes 141. March 1903.
?Acinophora, Raf.
Raf. Med. Repos. 2 hex. **5**: 355. 1808.
Raf. Précis 51. *d.* 1814.
Endl. Gen. Pl. 29. *d.* 1840.
Cda. Icon. **5**: 44. 1842.

Arachnion album, S.
S. Syn. Car. 59 (33) no. 334. *d.* 1822.
Fr. S. M. **2**: 303. *d.* 1823.
Spr. in L. Syst. Veg. 16 ed. **4**[1]: 519. *d.* 1827.
S. Syn. Am. Bor. 253 no. 2221. 1834.
Fr. Nova Acta. R. Soc. Sci. Upsal. III. **1**: 134. 1851.
*Rav. Fung. Car. **4**: *75.* 1855.
Curtis, M. A., Bot. N. Car. 111. 1867.
Cke. Grev. **6**: 133. June 1878.
*Rav. Fung. Am. *15.* 1878.
*Ell. N. A. F. *941.* 1883.
Cragin, Bull. Wash. Lab. **1**: 41. Jan. 1885.
De Toni in Sacc. Syll. **7**: 151. *d.* 15 March 1888.

Ell. in Cat. Pl. N. J. 499. 1889.
Webber, Tr. St. Louis Acad. **6**: 18. 12 March 1892 and Contr. Bot. Dept. Univ. Nebr. 3: 18. 14 June 1892.
Atk. Bull. Cornell Univ. **3**: 22. 25 June 1897.
Fischer, E., in Engler & Prantl, Pflanzenfam. 1^{1**}: 339. Dec. 1899.
Earle in Mohr, Contr. U. S. Nat. Herb. **6**: 234. 31 July 1901.
Lloyd, Gen. Gast. 11. *pl. 5, f. 28.* Jan. 1902.
Lloyd, Myc. Notes 142. *d. pl. 16.* March 1903.

Arachnion? aurantiacum, (Raf.) De Toni.
De Toni in Sacc. Syll. **7**: 151. *d.* 15 March 1888.
Fischer, E., in Engler & Prantl, Pflanzenfam. 1^{1**}: 339. Dec. 1899.
Acinophora aurantiaca, Raf.
Raf. Med. Repos. II. **5**: 355. 1808.
Raf. Précis 51. *d.* 1814.

Arachniotus trachyspermus, Shear.
Shear, Science II. **16**: 138. *d.* 25 July 1902.

Arachnopeziza aurata, Rehm non Fckl.
See ***Arachnopeziza rhaphidospora,*** (Ell.) Rehm.

Arachnopeziza Aurelia, (P.) Fckl.
Lindau in Engler & Prantl, Pflanzenfam. 1^{1}: 200. *d. f. 157 B-E.* Dec. 1894.
Fairman, Proc. Rochester Acad. **3**: 218. *d.* March 1900.
Durand, Bull. Torr. Bot. Club **27**: 484. *d.* 29 Sept. 1900.
Peziza Aurelia, P.
*Rav. Fung. Car. **5**: *41.* 1860.
Curtis, M. A., Bot. N. Car. 133. 1867.
Cke. Handbook 692. *d.* 1871.
Cke. Bull. Buf. Soc. **2**: 293. March 1875.
B. Grev. **3**: 156 (134). June 1875.
Frost in Cat. Pl. Amherst 90. 1875.
C. & E. Grev. **5**: 33. Sept. 1876.
C. & E. Grev. **6**: 7. Sept. 1877.
*Ell. N. A. F. 59. 1878.
Pk. Rept. N. Y. Mus. **34**: 51. Oct. 1883.
Cragin, Bull. Wash. Lab. **1**: 70. Jan. 1885.
Cobb, List Pl. Amherst 47. 1887.
Ell. in Cat. Pl. N. J. 547. 1889.
Millsp. Bull. W. Va. Exp. Sta. 24: 512. June 1892.
Belonidium Aurelia, De Not.
Sacc. Syll. **8**: 499. *d.* 20 Dec. 1889.
Bessey, Contr. Bot. Dept. Univ. Nebr. 3: 48. 14 June 1892.
Millsp. & Nutt. Publ. Field Columb. Mus. Bot. **1**: 152. Jan. 1896.
Underw. & Earle, Bull. Ala. Exp. Sta. 80: 200. 28 June 1897.

Arachnopeziza rhaphidospora, (Ell.) Rehm.

NOTE. A specimen under this name distributed by Ellis in N. A. F. *842* was referred by Rehm in 1893 to *Arachnopeziza aurata,* Fckl. but in 1904 he cites it under the name here accepted.

The species cited by Massee in Grev. **22**: 101. June 1894 as *Peziza rhaphidospora,* B. & C. Fung. Cub. no. 683 is not the same as the present species. It is described in Fung. Cub. under the name *Peziza* (*Daryscyphæ*), *raphidofera,* B. & C. See *Erinella rhaphidophora,* (B. & C.) Sacc.

Rehm, Ann. Myc. **2**: 352. *d.* 31 July 1904.
Peziza rhaphidospora, Ell.
Ell. Bull. Torr. Bot. Club **6**: 107. *d.* Sept. 1876.
*Ell. N. A. F. *842.* 1882.

Ell. in Cat. Pl. N. J. 547. 1889.
Massee, Grev. **22**: 101. *d.* June 1894.
Erinella rhaphidospora, Sacc.
Sacc. Syll. **8**: 509. *d.* 20 Dec. 1889.
Arachnopeziza aurata, Rehm non Fckl.
Rehm, Rabh. Krypt.-Fl. **1**[3]: 691. 1893.

Araiospora, Thax.
Thax. Bot. Gaz. **21**: 326. *d.* 17 June 1896 and Rev. Myc. **23**: 95. July 1901.
Sacc. & Lindau, Hedw. **36**: Rep. 7: xvii. *d.* 30 April 1897.
Sacc. & Syd. Syll. **14**: 454. *d.* 20 Aug. 1899.
Lindau in Engler & Prantl, Pflanzenfam. **1**[1]**: 529. *d.* Feb. 1900.

Araiospora pulchra, Thax.
Thax. Bot. Gaz. **21**: 328. *d. pl. 23, f. 20–25.* 17 June 1896. and Rev. Myc. **23**: 96. *pl. 217, f. 15, 22, 23.* July 1901.
Sacc. & Lindau, Hedw. **36**: Rep. 7: xvii. 30 April 1897.
Sacc. & Syd. Syll. **14**: 455. *d.* 20 Aug. 1899.
Lindau in Engler & Prantl, Pflanzenfam. **1**[1]**: 529. Feb. 1900.
King, Science II. **15**: 456. 21 March 1902.
King, Proc. Boston Soc. **31**: 211. *pl. 11–15.* Nov. 1903 and Bot. Gaz. **37**: 72. 20 Jan. 1904.

Arcyodes, O. F. Cook.
Cook, O. F., Science II. **15**: 651. 25 April 1902.

Arcyodes incarnata, (A. & S.) O. F. Cook.

NOTE. In the reference given below the name *Arcyodes* is proposed to replace *Lachnobolus* as understood by Lister. Whether the type species which is based on the old *Licea incarnata*, A. & S. referred to *Lachnobolus circinans*, Fr. by Lister is found in North America is a point on which opinions differ. The species quoted from Iowa under *Lachnobolus circinans*, Lister is by Macbride considered to be a different species peculiar to America which he calls *Lachnobolus occidentalis*, Macbr. See *Lachnobolus*, sp.

Cook, O. F., Science II. **15**: 651. 25 April 1902.

Arcyria adnata, (Batsch) Rostf.
See ***Arcyria incarnata,*** P.

Arcyria albida, P.
See ***Arcyria cinerea,*** (Bull.) P.

Arcyria albida, var. **globosa,** Lister.
See ***Lachnobolus globosus,*** (S.) Rostf.

Arcyria albida, var. **pomiformis,** Lister.
See ***Arcyria pomiformis,*** (Leers) Rostf.

Arcyria aurantiaca, Raunkiær.
See ***Arcyria ferruginea,*** Sauter.

Arcyria bicolor, B. & C.
See ***Arcyria digitata,*** S.

Arcyria cinerea, (Bull.) P.

NOTE. See also *Arcyria digitata,* (S.) Rostf.

Muhl. Cat. Pl. Am. Sept. 1 ed. 104. 1813. 2 ed. 107. 1818.
S. Syn. Car. 64 (38) no. 397. 1822.
S. Syn. Am. Bor. 259 no. 2336. 1834.
Lea, Cat. Pl. Cin. 69. 1849.
Sprague, Proc. Boston Soc. **5**: 328. 1856.
Curtis, M. A., Bot. N. Car. 113. 1867.
B. & C. Jour. Linn. Soc. **10**: 349. 1869.
Pk. Rept. N. Y. Mus. **22**: 89. 1869.

Cke. Handbook 401. *d.* 1871.
B. Grev. **2**: 67 (56). Nov. 1873.
Rostf. Mycetozoa 272. *d.* 1875.
Frost in Cat. Pl. Amherst 79. 1875.
Farl. Bull. Bussey Inst. **1**: 431. March 1876.
C. & E. Grev. **6**: 82. March 1878.
Cke. Ann. N. Y. Acad. **1**: 180. *d.* May 1878.
James, Jour. Cin. Soc. **2**: 66 (25). April 1879.
Pk. Rept. N. Y. Mus. **31**: 57. 1879.
Pk. in Day's Cat., Bull. Buf. Soc. **4**: 196 (132). 1883.
*Ell. N. A. F. *1115*. 1884.
Wint. & Demet. Hedw. **24**: 200 (24). Oct. 1885.
Arth. & Holw. Bull. Minn. Surv. 3: 39. 1 Oct. 1887.
Langlois, Cat. Pl. La. 27. 1887.
Berl. in Sacc. Syll. **7**: 427. *d.* 15 March 1888.
Schrt. in Engler & Prantl, Pflanzenfam. **1**[1]: 22. *d.* June 1889.
Ell. in Cat. Pl. N. J. 600. 1889.
Webber, Rept. Nebr. Agr. **1889**: 182 (42). 1890.
Macbr. Bull. Univ. Iowa **2**: 123. *d. pl. 2, f. 3, 3*[a]. June 1892.
Massee, Mon. Myx. 151. *d. pl. 5, f. 137–139. pl. 10, f. 248, 249.* Dec. 1892 and Bull. Torr. Bot. Club **20**: 77. 15 Feb. 1893.
Morg. Jour. Cin. Soc. **16**: 20 (26). *d.* June 1893.
Macbr. Bull. Univ. Iowa **2**: 379. Nov. 1893.
Underw. Proc. Ind. Acad. **1893**: 30. Aug. 1894.
Kellerm. & Werner, Geol. Ohio **7**[2]: 401. Jan. 1895.
Millsp. & Nutt. Publ. Field Columb. Mus. Bot. **1**: 86. Jan. 1896.
Harvey, Bull. Torr. Bot. Club **23**: 313. 20 Aug. 1896.
Macbr. & Smith, C. L., Bull. Univ. Iowa **4**: 73. Dec. 1896.
Macbr. Slime-moulds 196. *d. pl. 2, f. 3, 3*[a]. Aug. 1899.
Herbst, Fungal Fl. Lehigh Valley 215. *d.* 1899.
Jelliffe, Flora of Long Island 1. 1899.
Longyear, Rept. Mich. Agr. **1898**: 95. 1899.
Thomas, Proc. Ind. Acad. **1900**: 123. 1901.
Ricker, Univ. of Maine Studies 3: 16. 30 April 1902.
Mutchler, Proc. Ind. Acad. **1902**: 118. 1903.
Macbr. in Sacc., Pk. & Trel., Harriman Alaska Exp. **5**: 21. 5 April 1904.
Sumstine, Torreya **4**: 36. 12 March 1904.
Farl. in Coker, Veg. Bahama 243. 1905.
Schaffner, Tr. Kans. Acad. **19**: 204. 1905.
Arcyria albida, P.
Olive, Proc. Ind. Acad. **1897**: 149. 1898.
Whitney, Rhodora **1**: 128. 1 July 1899.
Mutchler, Proc. Ind. Acad. **1901**: 292. 1902.
Mutchler, Proc. Ind. Acad. **1902**: 119. 1903.
Arcyria albida, Lister p. p.
Lister, Mycetozoa 186. *d.* 1894.
Arcyria stricta, Rostf.
Rostf. Mycetozoa Suppl. 36. 1876.
Cke. Ann. N. Y. Lyceum **11**: 406. June 1877.
Bessey, Bull. Iowa Agr. Coll. **1884**: 134. Jan. 1885.
Arcyria Cookei, Massee.
Morg. Jour. Cin. Soc. **16**: 21 (27). *d. pl. 1, f. 16.* June 1893.
Kellerm. & Werner, Geol. Ohio **7**[2]: 401. Jan. 1895.
Clathrodes Cookei, Sheldon.
Sheldon, Minn. Bot. Studies **9**: 467. 20 Nov. 1895.
Clathrodes recutitum, Sheldon.
Sheldon, Minn. Bot. Studies **9**: 468. 20 Nov. 1895.

Arcyria cinerea, Massee p. p.
See ***Arcyria pomiformis,*** (Leers) Rostf.

Arcyria clavata, Massee.
See ***Hemitrichia clavata,*** (P.) Rostf.

Arcyria Cookei, Massee.
See ***Arcyria cinerea,*** (Bull.) P.

Arcyria denudata, Macbr.
See ***Arcyria punicea,*** P.

Arcyria digitata, (S.) Rostf.

NOTE. This may probably be considered only a clustered variety of *A. cinerea,* (Bull.) P. An examination of the specimens of *Arcyria pallida,* B. & C. and *Arcyria bicolor,* B. & C. in Herb. Curtis shows that both are the same as *Arcyria digitata,* S.

Pk. Rept. N. Y. Mus. **23**: 53. 1872.
Rostf. Mycetozoa 274. *d.* 1875.
Cke. Ann. N. Y. Lyceum **11**: 406. June 1877.
Berl. in Sacc. Syll. **7**: 428. *d.* 15 March 1888.
Schrt. in Engler & Prantl, Pflanzenfam. 1^1: 22. *d.* June 1889.
Massee, Mon. Myx. 153. *d.* Dec. 1892.
Morg. Jour. Cin. Soc. **16**: 21 (27). *d.* June 1893.
Macbr. Bull. Univ. Iowa **2**: 379. Nov. 1893.
Kellerm. & Werner, Geol. Ohio $\mathbf{7}^2$: 401. Jan. 1895.
Macbr. & Smith, C. L. Bull. Univ. Iowa **4**: 73. Dec. 1896.
Macbr. Slime-moulds 197. *d.* Aug. 1899.
Longyear, Rept. Mich. Agr. **1898**: 95. 1899.
Thomas, Proc. Ind. Acad. **1900**: 123. 1901.
Mutchler, Proc. Ind. Acad. **1901**: 292. 1902.
Duss, Champ. Guad. & Martinique 85. 1903.
Mutchler, Proc. Ind. Acad. **1902**: 119. 1903.
Sumstine, Torreya **4**: 36. 12 March 1904.
Stemonitis digitata, S.
S. Syn. Am. Bor. 260 no. 2350. *d.* 1834.
Arcyria pallida, B. & C.
Curtis, M. A., Bot. N. Car. 113. 1867.
B. Grev. **2**: 67 (56) no. 365. *d.* Nov. 1873.
Rostf. Mycetozoa 280. 1875.
Arcyria bicolor, B. & C.
B. & C. Jour. Linn. Soc. **10**: 349. *d.* 1869.
Rostf. Mycetozoa 280. 1875.
Arcyria albida, Lister p. p.
Lister, Mycetozoa 186. *d.* 1894.
Clathrodes digitatum, Sheldon.
Sheldon, Minn. Bot. Studies **9**: 467. 20 Nov. 1895.

Arcyria ferruginea, Sauter.
Massee, Mon. Myx. 144. *d. pl. 10, f. 250–253.* Dec. 1892.
Lister, Mycetozoa 184. *d. pl. 66 B.* 1894.
Harvey, Bull. Torr. Bot. Club **23**: 313. 20 Aug. 1896.
Harvey, Bull. Torr. Bot. Club **24**: 70. 28 Feb. 1897.
Underw. & Earle, Bull. Ala. Exp. Sta. 80: 133. 28 June 1897.
Whitney, Rhodora **1**: 128. 1 July 1899.
Macbr. Slime-moulds 194. *d.* Aug. 1899.
Lister, Jour. Bot. **37**: 463. Nov. 1899.
Earle in Mohr. Contr. U. S. Nat. Herb. **6**: 139. 31 July 1901.
Thomas, Proc. Ind. Acad. **1900**: 123. 1901.
Ricker, Univ. of Maine Studies 3: 16. 30 April 1902.

Mutchler, Proc. Ind. Acad. **1901**: 292. 1902.
Mutchler, Proc. Ind. Acad. **1902**: 118. 1903.
Arcyria macrospora, Pk.
Pk. Rept. N. Y. Mus. **34**: 43. *d.* Oct. 1883.
Durand, Bot. Gaz. **19**: 89. *d. pl. 9, f. 1, 3. pl. 10, f. 9.* 16 March 1894.
Sturgis, Tr. Conn. Acad. **10**: 488, 489. 5 May 1900 and Bot. Centralbl. **86**: 115. 17 April 1901.
? Arcyria aurantiaca, Raunkiær.
Harvey, Bull. Torr. Bot. Club **23**: 313. 20 Aug. 1896.
Harvey, Bull. Torr. Bot. Club **24**: 70. 28 Feb. 1897.
Clathrodes ferrugineum, Sheldon.
Sheldon, Minn. Bot. Studies **9**: 466. 20 Nov. 1895.
Clathrodes aurantiacum, Sheldon.
Sheldon, Minn. Bot. Studies **9**: 467. 20 Nov. 1895.

Arcyria flava, P.
See ***Arcyria nutans,*** (Bull.) Grev.

Arcyria globosa, S.
See ***Lachnobolus globosus,*** (S.) Rostf.

Arcyria incarnata, P.

NOTE. See note under *Arcyria minor,* S.

S. Syn. Car. 64 (38) no. 398. 1822.
S. Syn. Am. Bor. 259 no. 2337. 1834.
Sprague, Proc. Boston Soc. **5**: 328. 1856.
Curtis, M. A., Bot. N. Car. 113. 1867.
Cke. Handbook 401. *d. f. 136.* 1871.
Pk. Rept. N. Y. Mus. **25**: 84. Sept. 1873.
Rostf. Mycetozoa 275. *d.* 1875.
Cke. Ann. N. Y. Lyceum **11**: 406. June 1877.
Pk. Rept. N. Y. Mus. **31**: 57. 1879.
Pk. in Day's Cat., Bull. But. Soc. **4**: 196 (132). 1883.
Farl. Appalachia **3**: 238. Jan. 1884.
Wint. & Demet. Hedw. **24**: 200 (24). Oct. 1885.
Massee, Mon. Myx. 145. *d.* Dec. 1892.
Cockerell, Bull. Torr. Bot. Club **20**: 296. 15 July 1893.
Lister, Mycetozoa 189. *d. pl. 68 B.* 1894.
Macbr. Procr Iowa Acad. **5**: 27. 1898.
Whitney, Rhodora **1**: 128. 1 July 1899.
Macbr. Slime-moulds 193. *d.* Aug. 1899.
Thomas, Proc. Ind. Acad. **1900**: 123. 1901.
White, Bull. Torr. Bot. Club **29**: 551. 26 Sept. 1902.
Mutchler, Proc. Ind. Acad. **1901**: 292. 1902.
Mutchler, Proc. Ind. Acad. **1902**: 118. 1903.
Sumstine, Torreya **4**: 36. 12 March 1904.
Schaffner, Tr. Kans. Acad. **19**: 204. 1905.
Macbr. Proc. Iowa Acad. **12**: 35. 1905.
Arcyria adnata, (Batsch) Rostf.
Rostf. Mycetozoa Suppl. 36. 1876.
Berl. in Sacc. Syll. **7**: 428. *d.* 15 March 1888.
Schrt. in Engler & Prantl, Pflanzenfam. **1**[1]: 22. *d.* June 1889.
Ell. in Cat. Pl. N. J. 600. 1889.
Bessey, Contr. Bot. Dept. Univ. Nebr. 3: 45. 14 June 1892.
Macbr. Bull. Univ. Iowa **2**: 124. *d.* June 1892.
Morg. Jour. Cin. Soc. **16**: 19 (25). *d.* June 1893.
Kellerm. & Werner, Geol. Ohio **7**[2]: 401. Jan. 1895.
Harvey, Bull. Torr. Bot. Club **23**: 313. 20 Aug. 1896.
Ricker, Univ. of Maine Studies 3: 16. 30 April 1902.

Clathrodes adnatum, Sheldon.
Sheldon, Minn. Bot. Studies **9**: 466. 20 Nov. 1895.

Arcyria incarnata, P. var. **nodulosa,** Macbr.
Macbr. Slime-moulds 194. *d. pl. 3, f. 8.* Aug. 1899.
Mutchler, Proc. Ind. Acad. **1902**: 118. 1903.
Sumstine, Torreya **4**: 36. 12 March 1904.

Arcyria irregularis, Racib.?
Harvey, Bull. Torr. Bot. Club **26**: 323. 17 June 1899.
Ricker, Univ. of Maine Studies 3: 16. 30 April 1902.
Clathrodes irregulare, Sheldon.
Sheldon, Minn. Bot. Studies **9**: 466. 20 Nov. 1895.

Arcyria leiocarpa, Massee.
See ***Hemitrichia leiocarpa,*** (Cke.) Lister.

Arcyria leiocarpoides, (Speg.) Massee.

NOTE. This species, founded on *Cornuvia leiocarpoides,* Speg. is said by Lister to be a form of *Hemitrichia clavata,* (P.) Rostf.

Massee, Kew Bull. 138: 135. June 1898. Trinidad.

Arcyria leucocephala, Hoffm.
See ***Craterium leucocephalum,*** (P.) Ditm.

Arcyria lutea, S.
See ***Arcyria pomiformis,*** (Leers) Rostf.

Arcyria macrospora, Pk.
See ***Arcyria ferruginea,*** Sauter.

Arcyria magna, Rex.
Rex, Proc. Phil. Acad. **1893**: 364. *d.* March 1894.
Macbr. Slime-moulds 190. *d.* Aug. 1899.
Mutchler, Proc. Ind. Acad. **1902**: 119. 1903.
Sumstine, Torreya **4**: 36. 12 March 1904.
Arcyria Oerstedtii, Lister p. p.
Lister, Mycetozoa 190. *d.* 1894.

Arcyria magna, Rex, var. **rosea,** Rex.
Rex, Proc. Phil. Acad. **1893**: 365. *d.* March 1894.

Arcyria minor, S.

NOTE. Schweinitz remarks that this is closely related to *Arcyria incarnata,* P. in which opinion he has been followed by some recent writers. It can hardly be regarded as a distinct species.

S. Syn. Am. Bor. 259 no. 2341. *d.* 1834.
Rostf. Mycetozoa 280. 1875.
Cke. Ann. N. Y. Lyceum **11**: 407. June 1877.
Morg. Jour. Cin. Soc. **16**: 19 (25). *d. pl. 1, f. 17.* June 1893.
Kellerm. & Werner, Geol. Ohio **7**[2]: 401. Jan. 1895.
Underw. Proc. Ind. Acad. **1894**: 147. Oct. 1895.
Harvey, Bull. Torr. Bot. Club **23**: 313. 20 Aug. 1896.
Harvey, Bull. Torr. Bot. Club **26**: 323. 17 June 1899.

Arcyria nutans, (Bull.) Grev.
Sprague, Proc. Boston Soc. **6**: 318. 1859.
Curtis, M. A., Bot. N. Car. 113. 1867.
B. & C. Jour. Linn. Soc. **10**: 349. 1869.
Cke. Handbook 401. *d.* 1871.
Pk. Rept. N. Y. Mus. **26**: 76. April 1874.
Frost in Cat. Pl. Amherst 79. 1875.
Farl. Bull. Bussey Inst. **1**: 431. March 1876.

Cke. Ann. N. Y. Lyceum **11**: 407. June 1877.
Johnson, Bull. Minn. Acad. **1**: 292. 1877 and Rept. Minn. Surv. **5**: 84. 1877.
Phil. Grev. **7**: 21. Sept. 1878.
Pk. Rept. N. Y. Mus. **31**: 57. 1879.
Hark. & Moore, Cat. Pac. Fung. 20. Feb. 1880.
Farl. Appalachia **3**: 238. Jan. 1884.
Bessey, Bull. Iowa Agr. Coll. **1884**: 134. Jan. 1885.
Arth. & Holw. Bull. Minn. Surv. 3: 39. 1 Oct. 1887.
Langlois, Cat. Pl. La. 27. 1887.
Berl. in Sacc. Syll. **7**: 429. *d.* 15 March 1888.
Schrt. in Engler & Prantl, Pflanzenfam. 1^1: 22. *d. f. 17, D-F.* June 1889.
Ell. in Cat. Pl. N. J. 601. 1889.
Bessey, Contr. Bot. Dept. Univ. Nebr. 3: 45. 14 June 1892.
Macbr. Bull. Univ. Iowa **2**: 125. *d. pl. 2, f. 6, 6a, 6b.* June 1892.
Massee, Mon. Myx. 150. *d. pl. 5, f. 140, 141.* Dec. 1892.
Morg. Jour. Cin. Soc. **16**: 20 (26). *d.* June 1893.
Kellerm. & Werner, Geol. Ohio 7^2: 401. Jan. 1895.
Millsp. & Nutt. Publ. Field Columb. Mus. Bot. **1**: 86. Jan. 1896.
Harvey, Bull. Torr. Bot. Club **23**: 313. 20 Aug. 1896.
Harvey & Knight, Bull. Torr. Bot. Club **24**: 342. 29 July 1897.
*Ell. & Ev. N. A. F. *3598.* 24 Jan. 1898.
Macbr. Proc. Iowa Acad. **5**: 27. 1898.
Macbr. Slime-moulds 191. *d. pl. 11, f. 6, 6a, 6b.* Aug. 1899.
Fairman, Proc. Rochester Acad. **3**: 212. March 1900.
Ricker, Univ. of Maine Studies 3: 16. 30 April 1902.
White, Bull. Torr. Bot. Club **29**: 551. 26 Sept. 1902.
Mutchler, Proc. Ind. Acad. **1901**: 292. 1902.
Duss, Champ. Guad. & Martinique 85. 1903.
Mutchler, Proc. Ind. Acad. **1902**: 119. 1903.
Sumstine, Torreya **4**: 36. 12 March 1904.
Macbr. Proc. Iowa Acad. **12**: 35. 1905.
Arcyria flava, P.
S. Syn. Car. 63 (37) no. 395. 1822.
Grev. Scot. Crypt. Fl. **6**: *pl. 309.* 1828.
S. Syn. Am. Bor. 259 no. 2335. 1834.
Lister, Mycetozoa 190. *d. pl. 69 A.* 1894.
Olive, Proc. Ind. Acad. **1897**: 149. 1898.
Whitney, Rhodora **1**: 128. 1 July 1899.
Mutchler, Proc. Ind. Acad. **1901**: 292. 1902.
Mutchler, Proc. Ind. Acad. **1902**: 118. 1903.
Clathrodes nutans, Sheldon.
Sheldon, Minn. Bot. Studies **9**: 467. 20 Nov. 1895.
Arcyria Oerstedtii, Farl. in Coker.
Farl. in Coker, Veg. Bahama 243. 1905.

Arcyria ochroleuca, (Trent.) Fr.
See ***Arcyria pomiformis,*** (Leers) Rostf.

Arcyria Oerstedtii, Rostf.
Arth. & Holw. Bull. Minn. Surv. 3: 39. 1 Oct. 1887.
Macbr. Bull. Univ. Iowa **2**: 125. *d.* June 1892.
Lister, Mycetozoa 190. *d. pl. 69 B.* 1894. p. p.
Harvey, Bull. Torr. Bot. Club **23**: 313. 20 Aug. 1896.
Macbr. Slime-moulds 191. *d.* Aug. 1899.
Thomas Proc. Ind. Acad. **1900**: 123. 1901.
Ricker, Univ. of Maine Studies 3: 16. 30 April 1902.
Mutchler, Proc. Ind. Acad. **1902**: 119. 1903.
Sumstine, Torreya **4**: 36. 12 March 1904.

Arcyria Oerstedtii, Lister p. p.
See ***Arcyria magna,*** Rex.

Arcyria Oerstedtii, Farl. in Coker.
See ***Arcyria nutans,*** (Bull.) Grev.

Arcyria pallida, B. & C.
See ***Arcyria digitata,*** (S.) Rostf.

Arcyria pomiformis, (Leers) Rostf.
Rostf. Mycetozoa 271. *d.* 1875.
Cke. Ann. N. Y. Lyceum **11:** 406. June 1877.
C. & E. Grev. **6:** 82. March 1878.
Pk. Rept. N. Y. Mus. **31:** 42, 57. 1879.
Calkins, Jour. Myc. **3:** 7. Jan. 1887.
Langlois, Cat. Pl. La. 27. 1887.
Berl. in Sacc. Syll. **7:** 427. *d.* 15 March 1888.
Ell. in Cat. Pl. N. J. 600. 1889.
Webber, Rept. Nebr. Agr. **1889:** 182 (42). 1890.
*Ell & Ev. N. A. F. 3497. 10 Dec. 1896.
Harvey, Bull. Torr. Bot. Club **24:** 70. 28 Feb. 1897.
Macbr. Proc. Iowa Acad. **5:** 27. 1898.
Macbr. Slime-moulds 197. *d.* Aug. 1899.
Ricker, Univ. of Maine Studies 3: 16. 30 April 1902.
Mutchler, Proc. Ind. Acad. **1902:** 119. 1903.
Arcyria umbrina, Schum.
Curtis, M. A., Bot. N. Car. 113. 1867.
Cke. Handbook 401. *d.* 1871.
B. Grev. **2:** 67 (56). Nov. 1873.
Phil. Grev. **5:** 115. March 1877.
Hark. & Moore, Cat. Pac. Fung. 20. Feb. 1880.
Johnson, Bull. Minn. Acad. **1:** 362. 1880.
Arcyria lutea, S.
S. Syn. Car. 63 (37). *d.* no. 396. 1822.
Spreng. in L. Syst. Veg. 16 ed. **4[1]:** 530. *d.* 1827.
S. Syn. Am. Bor. 259 no. 2339. 1834.
Arcyria ochroleuca, (Trent.) Fr.
Fr. S. M. **3:** 181. 1832.
Curtis, M. A., Bot. N. Car. 113. 1867.
Cke. Handbook 401. *d.* 1871.
Arcyria cinerea, Massee p. p.
Massee, Mon. Myx. 152. Dec. 1892.
Clathrodes umbrinum, Sheldon.
Sheldon, Minn. Bot. Studies **9:** 466. 20 Nov. 1895.
Arcyria albida, var. ***pomiformis,*** Lister.
Lister, Mycetozoa 186. *d.* 1894.

Arcyria punicea, P.
Muhl. Cat. Pl. Am. Sept. 1 ed. 104. 1813. 2 ed. 107. 1818.
S. Syn. Car. 64 (38) no. 399. 1822.
Grev. Scot. Crypt. Fl. **3:** *pl. 130.* 1825.
Hitchcock, Cat. Pl. Amherst 59. 1829.
Hitchcock, Cat. Pl. Mass. 644. 1833. 2 ed. 646 (126). 1835.
S. Syn. Am. Bor. 259 no. 2338. 1834.
Lea, Cat. Pl. Cin. 69. 1849.
Klotzsch, Linnæa **25:** 364. 1852 and Heller, Muhlenbergia **1:** 18. 9 Aug. 1901.
*Rav. Fung. Car. **2:** *80.* 1853.
Watt, Can. Nat. & Geol. II. **2:** 391. Oct. 1865.

Curtis, M. A., Bot. N. Car. 113. 1867.
Cke. Handbook 400. *d.* 1871.
Pk. Rept. N. Y. Mus. **24**: 84. 1872.
Frost in Cat. Pl. Amherst 79. 1875.
Rostf. Mycetozoa 268. *d.* 1875.
Farl. Bull. Bussey Inst. **1**: 431. March 1876.
Phil. Grev. **5**: 115. March 1877.
Cke. Ann. N. Y. Lyceum **11**: 406. June 1877.
James, Jour. Cin. Soc. **2**: 66 (25). April 1879.
Pk. Rept. N. Y. Mus. **31**: 57. 1879.
Hark. & Moore, Cat. Pac. Fung. 20. Feb. 1880.
Johnson, Bull. Minn. Acad. **1**: 362. 1880.
Bundy, Geol. Wis. 1873–79. **1**: 400. 1883.
Pk. in Day's Cat., Bull. Buf. Soc. **4**: 196 (132). 1883.
Farl. Appalachia **3**: 238. Jan. 1884.
*Ell. N. A. F. *1114.* 1884.
Wint. & Demet. Hedw. **24**: 200 (24). Oct. 1885.
Calkins, Jour. Myc. **3**: 59. May 1887.
Arth. & Holw. Bull. Minn. Surv. 3: 39. 1 Oct. 1887.
Langlois, Cat. Pl. La. 27. 1887.
Berl. in Sacc. Syll. **7**: 426. *d.* 15 March 1888.
Bennett, Cat. Pl. R. I. 85. 1888.
Schrt. in Engler & Prantl, Pflanzenfam. **1**[1]: 22. *d.* June 1889.
Ell. in Cat. Pl. N. J. 600. 1889.
Bessey, Contr. Bot. Dept. Univ. Nebr. 3: 45. 14 June 1892.
Macbr. Bull. Iowa **2**: 123. *d. pl. 2, f. 5, 5a.* June 1892.
Massee, Mon. Myx. 142. *d. pl. 10, f. 242–244.* Dec. 1892.
Atk. & Schrenk, Jour. Mitch. Soc. **9**: 106 (12). April 1893.
Morg. Jour. Cin. Soc. **16**: 19 (25). *d.* June 1893.
Macbr. Bull. Univ. Iowa **2**: 379. Nov. 1893.
Underw. Proc. Ind. Acad. **1893**: 30. Aug. 1894.
Lister, Mycetozoa 188. *d. pl. 68 A, f. a, b.* 1894.
Kellerm. & Werner, Geol. Ohio **7**[2]: 401. Jan. 1895.
Millsp. & Nutt. Publ. Field Columb. Mus. Bot. **1**: 86. Jan. 1896.
*Shear, N. Y. Fungi *400.* March 1896.
Harvey, Bull. Torr. Bot. Club **23**: 312. 20 Aug. 1896.
Macbr. & Smith, C. L., Bull. Univ. Iowa **4**: 73. Dec. 1896.
Underw. & Earle, Bull. Ala. Exp. Sta. 80: 133. 28 June 1897.
Olive, Proc. Ind. Acad. **1897**: 149. 1898.
Harvey, Bull. Torr. Bot. Club **26**: 324. 17 June 1899.
Pk. Bull. N. Y. Mus. **6**: 234. July 1899.
Whitney, Rhodora **1**: 128. 1 July 1899.
Herbst, Fungal Fl. Lehigh Valley 215. *d.* 1899.
Longyear, Rept. Mich. Agr. **1898**: 95. 1899.
Earle in Mohr. Contr. U. S. Nat. Herb. **6**: 139. 31 July 1901.
Ricker, Univ. of Maine Studies 3: 16. 30 April 1902.
Harvey, Bull. Torr. Bot. Club **26**: 324. 17 June 1902.
Mutchler, Proc. Ind. Acad. **1901**: 292. 1902.
Duss, Champ. Guad. & Martinique 85. 1903.
Mutchler, Proc. Ind. Acad. **1902**: 118. 1903.
Farl. in Coker, Veg. Bahama 243. 1905.
Arcyria vernicosa, Rostf.
Rostf. Mycetozoa Suppl. 36. 1876.
Clathrodes denudatum, Sheldon.
Sheldon, Minn. Bot. Studies **9**: 466. 20 Nov. 1895.
Arcyria denudata, Macbr.
Macbr. Slime-moulds 195. *d. pl. 2, f. 5, 5a.* Aug. 1899.
Fairman, Proc. Rochester Acad. **3**: 212. March 1900.

Macbr. Rhodora **2**: 79, 81. *pl. 16, f. 6, 6a.* 14 April 1900.
Sumstine, Torreya **4**: 36. 12 March 1904.
Macbr. in Sacc. Pk. & Trel. Harriman Alaska Exp. **5**: 21. 5 April 1904.
Schaffner, Tr. Kans. Acad. **19**: 204. 1905.

Arcyria rubiformis, Massee.
See note under ***Hemitrichia rubiformis,*** (P.) Lister.

Arcyria Serpula, Massee.
See ***Hemitrichia Serpula,*** (Scop.) Rostf.

Arcyria stipata, Lister.
See ***Hemitrichia stipata,*** (S.) Macbr.

Arcyria stricta, Rostf.
See ***Arcyria cinerea,*** (Bull.) P.

Arcyria umbrina, Schum.
See ***Arcyria pomiformis,*** (Leers) Rostf.

Arcyria vernicosa, Rostf.
See ***Arcyria punicea,*** P.

Arcyria versicolor, Phil.
See ***Arcyria vitellina,*** Phil., var. ***versicolor,*** (Phil.) n. n.

Arcyria vitellina, Phil.
Phil. Grev. **5**: 115. *d. pl. 88, f. 7.* March 1877.
Hark. & Moore, Cat. Pac. Fung. 20. Feb. 1880.
Berl. in Sacc. Syll. **7**: 432. *d.* 15 March 1888.
Macbr. Slime-moulds 192. *d.* Aug. 1899.
Macbr. Bull. Iowa **2**: 124. *d. pl. 2, f. 4, 4a.* June 1892.
Mutchler, Proc. Ind. Acad. **1902**: 119. 1903.
Clathrodes vitellinum, Sheldon.
Sheldon, Minn. Bot. Studies **9**: 467. 20 Nov. 1895.

Arcyria vitellina, Phil., var. **versicolor,** (Phil.) n. n.
Arcyria versicolor, Phil.
Phil. Grev. **5**: 115. *d. pl. 88, f. 8.* March 1877.
Cke. Ann. N. Y. Lyceum **11**: 407. June 1877.
Hark. & Moore, Cat. Pac. Fung. 20. Feb. 1880.
Berl. in Sacc. Syll. **7**: 432. *d.* 15 March 1888.
Massee, Mon. Myx. 149. *d.* Dec. 1892.
Lister, Mycetozoa 185. *d. pl. 67 A.* 1894.

Arcyria, sp. indet.
Massee, Journ. Bot. **30**: 164. June 1892. West Indies.

Aregma, Fr.

NOTE. The genus *Aregma* was described by Fries in his Observationes **1**: 225. 1815. The genus *Phragmidium* was described by Link in Ges. Nat. Freunde Mag. **7**: 30. The date of this volume is given as 1816 on the title-page of the volume and this date has generally been accepted as correct. Fries however in Systema Mycologicum **3**: 495. 1832 makes the statement that *Aregma* and *Phragmidium* were published in the same year from which one might infer that that part of volume 7 including Link's paper was issued earlier than 1816. The volume is in four parts of which part one including *Phragmidium* has the title "Erstes Quartal, Jan., Feb., März, 1813." It may therefore be the case that it is to an earlier edition of the Erstes Quartal issued in advance of the volume to which Fries refers. In the Summa, 507. 1849 Fries adopted the name *Phragmidium* including his *Aregma.* We have referred our species of *Aregma* to ***Phragmidium,*** that name being accepted by most writers.

Aregma disciflora, Arth.

NOTE. This name, founded on *Ascophora disciflora,* Tode Fung. Meckl. **1**: 16. *d. pl. 3, f. 26, 27.* 1790 has been employed by Arthur in Indiana Plant Rusts, 1899 and 1904 to designate *Phragmidium subcorticium,* (Schrank) Wint.

The description and figures of Tode are wholly inadequate for the recognition of any one species and include forms on both *Rubus* and *Rosa.*

Tode's species is a composite considered by Streinz to be a synonym of *Phragmidium incrassatum,* Lk. a parasite of *Rubus* and by Arthur to designate one of the species parasitic on *Rosa* so that evidently it should not replace any of the more accurate names of modern usage.

Aregma Fragariæ, Arth.
See ***Phragmidium Fragariæ,*** (D C.) Wint.

Aregma mucronatum, Fr.
See ***Phragmidium subcorticium,*** (Schrank) Wint.

Aregma mucronatum, Auct. Amer. p. p.
See ***Phragmidium Rosæ-alpinæ,*** (D C.) Wint.

Aregma mucronatum, Auct. Amer. p. p.
See ***Phragmidium Rubi,*** (P.) Wint.

Aregma obtusatum, Fr.
See ***Phragmidium Fragariæ,*** (D C.) Wint.

Aregma speciosum, Fr.
See ***Phragmidium speciosum,*** Fr.

Aregma triarticulatum, B. & C.
See ***Phragmidium Fragariæ,*** (D C.) Wint.
See ***Phragmidium Potentillæ,*** (P.) Wint.
See ***Phragmidium Potentillæ-Canadensis,*** Diet.

Argynna, Morg.
Morg. Jour. Cin. Soc. **18**: 41. *d.* Dec. 1895.
Sacc. Hedw. **35**: Rep. 7: xxiv. *d.* 25 Feb. 1896.
Lindau in Engler & Prantl, Pflanzenfam. 1^1: 338. *d.* Jan. 1897.
Sacc. & Syd. Syll. **14**: 470. *d.* 20 Aug. 1899.

Argynna polyædron, (S.) Morg.

NOTE. The *Sphæria Curtisii,* B. in Herb. Curtis 2174 which is stated by Cooke in Grev. **18**: 60. March 1890 to be *Sphæria caryophaga,* S. is not that species but *Argynna polyædron,* (S.) Morg.

It should be noticed that on page 144 of Curtis's Catalogue is a *Nectria Curtisii,* B. which is *Calonectria Curtisii,* (B.) Sacc.

Morg. Jour. Cin. Soc. **18**: 41. *d.* Dec. 1895.
Sacc. Hedw. **35**: Rep. 7: xxiv. 25 Feb. 1896.
Lindau in Engler & Prantl, Pflanzenfam. 1^1: 338. Jan. 1897.
Sacc. & Syd. Syll. **14**: 470. *d.* 20 Aug. 1899.
Physarum polyædron, S.
S. Syn. Am. Bor. 257 no. 2300. *d.* 1834.
Rostf. Mycetozoa 116. 1875.
Cke. Ann. N. Y. Lyceum **11**: 387. June 1877.
Berl. in Sacc. Syll. **7**: 352. *d.* 15 March 1888.
Massee, Mon. Myx. 316. *d.* Dec. 1892.
Lister, Mycetozoa 62. *d.* 1894.
Sphæria Curtisii, B. in Herb. Curtis.
Curtis, M. A., Bot. N. Car. 145. 1867.
Cke. Grev. **20**: 84. March 1892.

Armillaria, Fr.
Pk. Rept. N. Y. Mus. **43**: 86 (40). *d.* Oct. 1890.
Pk. Rept. N. Y. Mus. **48**: 262 (164). *d.* March 1897.

Armillaria appendiculata, Pk.
Pk. Bull. Torr. Bot. Club **24**: 140. *d.* 30 March 1897.
Underw. & Earle, Bull. Ala. Exp. Sta. 80: 255. *d.* 28 June 1897.
Lindau & Syd. Hedw. **37**: Beibl. 7: 1. 9 April 1898.
Sacc. & Syd. Syll. **14**: 70. *d.* 20 Aug. 1899.
McIlvaine & Macadam, Am. Fung. 54. *d.* 1900.
Earle in Mohr, Contr. U. S. Nat. Herb. **6**: 227. 31 July 1901.

Armillaria aurantia, (Schæff.) Fr.
Atk. Mushrooms 84. *d. f. 86.* 20 Oct. 1900.
Hay, Bull. Nat. Hist. Soc. N. B. **5**: 114. 1903.
Agaricus aurantius, Schæff.
S. Syn. Am. Bor. 146 no. 30. 1834.
Agaricus Peckii, Howe.
Howe, Bull. Torr. Bot. Club **6**: 66. *d.* Dec. 1875.
Tricholoma Peckii, Howe.
Howe, Bull. Torr. Bot. Club **6**: 66. *d.* Dec. 1875.
Pk. Rept. N. Y. Mus. **41**: 82. *d.* 1888.
Pk. Rept. N. Y. Mus. **44**: 155 (43). *d.* Dec. 1891.
Pk. Bull. Torr. Bot. Club **26**: 253. 15 May 1899.
Atk. Mushrooms 86. 20 Oct. 1900.
Pk. Rept. N. Y. Mus. **55**: 962. *d.* Nov. 1902. [Bull. **10**: no. 54.]
Longyear, Rept. Mich. Acad. **4**: 120. 1904.
Mastoleucomyces Aurantius, O. Kuntze.
Kuntze, O., Rev. Gen. Pl. **2**: 861. 1891.

Armillaria bulbigera, (A. & S.) Fr.
Pk. Rept. N. Y. Mus. **43**: 91 (45). Oct. 1890.
Atk. Bull. Cornell Univ. **3**: 24. 25 June 1897.
Earle in Mohr, Contr. U. S. Nat. Herb. **6**: 227. 31 July 1901.
Selby, Rept. Ohio Acad. **10**: 78. 1902.
Agaricus bulbiger, A. & S.
S. Syn. Car. 80 (54) no. 568. 1822.
S. Syn. Am. Bor. 145 no. 18. 1834.
Curtis, M. A., Bot. N. Car. 84. 1867.
Mastoleucomyces bulbiger, O. Kuntze.
Kuntze, O., Rev. Gen. Pl. **2**: 861. 1891.

Armillaria cheimonophila.

N.B. On page 116 the name *cheimonophylla* was erroneously written by me *cheimonophila.* A. B. S.

Armillaria cheimonophylla, B. & C.

NOTE. This species which has no annulus as shown by an examination of original specimens is not a true *Armillaria.* It is placed by Patouillard (1887) in *Mucidula,* a genus based by him on *Armillaria mucida,* (Schrad.) Fr., a species reported in the United States but not common, which differs from *A. cheimonophylla,* B. & C. in having an annulus although agreeing with it in some other respects.

Sacc. Cub. & Manc. Syll. **5**: 86. *d.* 28 May 1887.
Henn. in Engler & Prantl, Pflanzenfam. **1'****: 270. 1898.
Agaricus cheimonophyllus, B. & C.
B. & C. Jour. Linn. Soc. **10**: 284. *d.* 1869. West Indies.
Mastoleucomyces cheimonophyllus, O. Kuntze.
Kuntze, O., Rev. Gen. Pl. **2**: 861. 1891.

Mucidula cheimonophylla, Pat.
Pat. Bull. Soc. Myc. Fr. **15**: 192. *d.* 31 July 1899.
Duss, Champ. Guad. & Martinique 48. 1903.

Armillaria constricta, Fr.
Sacc. Cub. & Manc. Syll. **5**: 77. *d.* 28 May 1887.*
Pk. Rept. N. Y. Mus. **43**: 91 (45). Oct. 1890.
Agaricus constrictus, Fr.
Fr. S. M. **1**: 28. *d.* 1821.*
Hark. & Moore, Cat. Pac. Fung. 2. Feb. 1880.
Mastoleucomyces constrictus, O. Kuntze.
Kuntze, O., Rev. Gen. Pl. **2**: 861. 1891.

Armillaria imperialis, Fr.
Hay, Bull. Nat. Hist. Soc. N. B. **5**: 115. 1903.
Mastoleucomyces imperialis, O. Kuntze.
Kuntze, O., Rev. Gen. Pl. **2**: 861. 1891.

Armillaria luteovirens, (A. & S.) Fr.
Agaricus luteovirens, A. & S.
S. Syn. Car. 82 (56) no. 622. 1822.
S. Syn. Am. Bor. 146 no. 31. 1834.
Curtis, M. A., Bot. N. Car. 84. 1867.
Mastoleucomyces luteovirens, O. Kuntze.
Kuntze, O., Rev. Gen. Pl. **2**: 861. 1891.

Armillaria macrospora, Pk.
Pk. Bull. Torr. Bot. Club **27**: 610. *d.* 29 Dec. 1900.
Sacc. & Syd. Syll. **16**: 19. *d.* 1 Feb. 1902.

Armillaria megalopoda, Bres.
Hay, Bull. Nat. Hist. Soc. N. B. **5**: 115. 1903.
Mastoleucomyces megalopodus, O. Kuntze.
Kuntze, O., Rev. Gen. Pl. **2**: 861. 1891.

Armillaria mellea, (Vahl) Fr.

NOTE. The sclerotioid condition of this species is the *Rhizomorpha subcorticalis* of older mycologists and we have for convenience inserted here the North American references to that *Rhizomorpha* but without intending to imply that in all cases cited the *Rhizomorpha* belongs beyond doubt to *Armillaria mellea.*

A difficulty in the synonymy arises from the fact that while *Armillaria mellea* normally has an annulus, specimens are occasionally found belonging undoubtedly to this species but in which the annulus is wanting.

There are other cases of forms referred to *Clitocybe* by some writers in consequence of the absence of an annulus, although in other respects certainly closely related to *Armillaria mellea.* Whether such forms are to be regarded as distinct species or merely as forms of *Armillaria mellea* is a matter of individual judgment. Peck in Rept. N. Y. Mus. **46**: 134 (54). Dec. 1893 proposed the name *Armillaria mellea,* var. *exannulata* to include such forms. Later in Rept. N. Y. Mus. **51**[1]: 284, 302. 11 Feb. 1899 he expresses the opinion that *Clitocybe monadelpha,* Morg. is distinct. We have here brought together all the references to *Clitocybe monadelpha* and *Clitocybe aquatica* since they need to be consulted in connection with *Armillaria mellea.*

It should be remarked that this species was placed by Karsten (1879) in the genus *Armillariella* characterized by an annulus and decurrent gills as distinguished from forms like *Armillaria robusta,* (A. & S.) Fr. in which the gills are not decurrent.

Sacc. Cub. & Manc. Syll. **5**: 80. *d.* 28 May 1887.
Pound, Bull. Nebr. Exp. Sta. **1**: 360 (90). 18 Dec. 1889.
Pk. Rept. N. Y. Mus. **43**: 88 (42). *d.* 91 (45). Oct. 1890.

Taylor, Rept. U. S. Agr. **1890**: 367 (6). *pl. 1, f. 4.* 1890. [Reprint 1893.]
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Pk. Rept. N. Y. Mus. **46**: 133 (53). Dec. 1893.
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Pk. Rept. N. Y. Mus. **47**: 172 (46). 20 Nov. 1894.
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*Ell. & Ev. N. A. F. *3201.* 24 April 1895.
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Pk. Rept. N. Y. Mus. **48**: 262 (164). *d. pl. 20.* March 1897.
Atk. Bull. Cornell Univ. **3**: 24. 25 June 1897.
McClatchie, Proc. S. Cal. Acad. **1**: 385. 5 June 1897.
Underw. & Earle, Bull. Ala. Exp. Sta. 80: 256. 28 June 1897.
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*Ell. & Ev. N. A. F. *3501.* 24 Jan. 1898.
Williams, Asa Gray Bull. **6**: 106. Dec. 1898.
Henn. in Engler & Prantl, Pflanzenfam. 1^{1**}: 270. *d. f. 123 B.* 1898.
[Underw.] N. Y. Myc. Club 16. 1898.
Pk. Bull. N. Y. Mus. **6**: 193. July 1899.
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Underw. Moulds 121. 1899.
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Walker, Rept. Arkansas Exp. Sta. **1902**: 30. Feb. 1903.
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Muhl. Tr. Am. Phil. Soc. **4**: 240. 1799.
Grev. Scot. Crypt. Fl. **6**: *pl. 332.* 1828.
S. Syn. Am. Bor. 145 no. 20. 1834.
Lea, Cat. Pl. Cin. 49. 1849.
*Rav. Fung. Car. **2**: *1.* 1853.
Sprague, Proc. Boston Soc. **6**: 316. 1859.
Curtis, M. A., Bot. N. Car. 84. 1867.
Pk. Rept. N. Y. Mus. **22**: 76. 1869.
Curtis, M. A., Jour. Roy. Hort. Soc. II. **2**: 73. 1870.
Cke. Handbook 19. *pl. 2, f. 3. f. 36. d.* 1871.
Pk. Rept. N. Y. Mus. **23**: 73. *d.* 1872.
Pk. Rept. N. Y. Mus. **24**: 102. 1872.
Parker, Proc. Poughk. Soc. **1**: 84. 1 Nov. 1875.
Frost in Cat. Pl. Amherst 62. 1875.
Farl. Bull. Bussey Inst. **1**: 436. March 1876.
Pk. Tr. Albany Inst. **8**: 164. 1876.
Johnson, Bull. Minn. Acad. **1**: 212. 1877 and Rept. Minn. Surv. **5**: 67. 1877.
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James, Jour. Cin. Soc. **2**: 63 (22). April 1879.
Fowler, Rept. Agr. N. B. **1878**: Append. B: 63. 1879.
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*Rav. Fung. Am. *407.* 1881.
Morg. Jour. Cin. Soc. **6**: 64. *d.* April 1883.
Pk. Rept. N. Y. Mus. **33**: 36. Oct. 1883.
Bundy, Geol. Wis. 1873–79, **1**: 396. 1883.
Pk. in Day's Cat., Bull. Buf. Soc. **4**: 175 (111). 1883.
Rav. S. Car. Resources 354. 1883.
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Pk. Rept. N. Y. Mus. **39**: 57. Sept. 1887.
Cobb, List. Pl. Amherst 31. 1887.
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Scribner, Bot. Gaz. **13**: 15. Jan. 1888.
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Bennett, Cat. Pl. R. I. 76. 1888.
Pk. Rept. N. Y. Mus. **41**: 91, 92. 1888.
Ell. in Cat. Pl. N. J. 469. 1889.
Scribner, Orchard & Garden **12**: 12. *d. f. 1485, 1622.* Jan. 1890.
Pammel, Proc. Soc. Prom. Agr. Sci. **1890**: 91. 1890.
Mayer, Waldungen von Nordamer. 211, 434. 1890.
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Eby, Fungi of Lancaster Co. 7. 1894.
Starnes, Bull. Ga. Exp. Sta. 28: 282. Sept. 1895.
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Graves, Asa Gray Bull. **5**: 28. March 1897.
Gall. & Woods, Yearb. U. S. Agr. **1896**: 249. 1897.
Taylor, Hdbk. Mushrooms 2: 13. *d. pl. 6.* 1897.
Tubeuf-Smith, Diseases of Plants 455. *f. 285–288.* 1897.
Schrenk, Bull. U. S. Agr. Veg. Pathol. 25: 50. 1900.
Trel. Rept. Mo. Hort. Soc. **43**: 234 (11). 1900.
Wilcox, Bot. Gaz. **32**: 226. 24 Sept. 1901.

Schrenk, Pacific Rural Press **61**: 324. 1901.
Schrenk, Yearb. U. S. Agr. **1900**: 200. 1901.
Piper & Fletcher, Bull. Wash. Exp. Sta. 59: 3. *f. 1–4.* 1903.

Agaricus polymyces, P.
Muhl. Cat. Pl. Am. Sept. 1 ed. 104. 1813. 2 ed. 107. 1818.
S. Syn. Car. 80 (54) no. 566. 1822.

Mastoleucomyces melleus, O. Kuntze.
Kuntze, O., Rev. Gen. Pl. **2**: 861. 1891.

Rhizomorpha subcorticalis, P.
Muhl. Cat. Pl. Am. Sept. 1 ed. 106. 1813. 2 ed. 108. 1818.
S. Syn. Car. 131 (105) no. 1369. 1822.
Hitchcock, Cat. Pl. Amherst 63. 1829.
Hitchcock, Cat. Pl. Mass. 647. 1833. 2 ed. 648 (128). 1835.
*Rav. Fung. Car. **3**: *47.* 1855.
Curtis, M. A., Bot. N. Car. 139. 1867.
Pk. Rept. N. Y. Mus. **24**: 97. 1872.
Frost in Cat. Pl. Amherst 93. 1875.
Lesquereux, Rev. Myc. **3**: 74. July 1881.
*Ell. N. A. F. *833.* 1882.
Cobb, List Pl. Amherst 45. 1887.
Webber, Rept. Nebr. Agr. **1889**: 216 (76). 1890.
*Ell. & Ev. N. A. F. *3100.* April 1894.
*Ell. & Ev. Fung. Columb. *400.* 1894.

Armillaria mellea, (Vahl) Fr., var. **albida,** Pk.
Pk. Rept. N. Y. Mus. **46**: 134 (54). *d.* Dec. 1893.
Pk. Country Gent. **59**: 583 (50). 9 Aug. 1894.
McIlvaine & Macadam, Am. Fung. 56. *d.* 1900.

Armillaria mellea, (Vahl) Fr., var. **bulbosa,** Pk.
Pk. Rept. N. Y. Mus. **46**: 133 (53). *d.* Dec. 1893.
Pk. Country Gent. **59**: 583 (50). 9 Aug. 1894.
McIlvaine & Macadam, Am. Fung. 56. *d.* 1900.
Hyams, Bull. N. Car. Exp. Sta. 177: 32. Dec. 1900.
? Piper & Fletcher, Bull. Wash. Exp. Sta. 59: 13. *d. f. 5.* 1903.

Armillaria mellea, (Vahl) Fr., var. **flava,** Gillet.
Pk. Rept. N. Y. Mus. **46**: 134 (54). Dec. 1893.
Pk. Country Gent. **59**: 583 (50). 9 Aug. 1894.
McIlvaine & Macadam, Am. Fung. 56. *d.* 1900.
Hyams, Bull. N. Car. Exp. Sta. 177: 32. Dec. 1900.

Armillaria mellea, (Vahl) Fr., var. **glabra,** Gillet.
Pk. Rept. N. Y. Mus. **46**: 134 (54). Dec. 1893.
Pk. Country Gent. **59**: 583 (50). 9 Aug. 1894.
McIlvaine & Macadam, Am. Fung. 56. *d.* 1900.
Hyams, Bull. N. Car. Exp. Sta. 177: 32. Dec. 1900.

Armillaria mellea, (Vahl) Fr., var. **nigripes,** Pk. nom. nud.
McClatchie in Reid's Hist. Pasadena 619. 1895.

Armillaria mellea, (Vahl) Fr., var. **obscura,** Gillet.
Pk. Rept. N. Y. Mus. **46**: 134 (54). Dec. 1893.
Pk. Country Gent. **59**: 583 (50). 9 Aug. 1894.
McIlvaine & Macadam, Am. Fung. 56. *d.* 1900.
Hyams, Bull. N. Car. Exp. Sta. 177: 32. Dec. 1900.

Armillaria mellea, (Vahl) Fr., var. **radicata,** Pk.
Pk. Rept. N. Y. Mus. **44**: 150 (38). Dec. 1891.
Pk. Rept. N. Y. Mus. **46**: 134 (54). Dec. 1893.
Pk. Country Gent. **59**: 583 (50). 9 Aug. 1894.
McIlvaine & Macadam, Am. Fung. 56. *d.* 1900.

Armillaria mellea, (Vahl) Fr., var. **exannulata,** Pk.
Pk. Rept. N. Y. Mus. **46**: 134 (54). *d.* Dec. 1893.
Pk. Country Gent. **59**: 583 (50). 9 Aug. 1894.
McIlvaine & Macadam, Am. Fung. 56. *d. pl. 16, f. 2.* 1900.
Hyams, Bull. N. Car. Exp. Sta. 177: 32. Dec. 1900.
Wilcox, Bull. Okla. Exp. Sta. 49: 17. *d.* 18. *pl. 4, f. 4.* Feb. 1901.
Clitocybe sociales, Fr.
McIlvaine & Macadam, Am. Fung. 89. *d.* 1900.
Clitocybe gymnopodia, Auct.
Langlois, Proc. La. Soc. Naturalists **1897-9**: 56. *d.* 1900.
Agaricus monadelphus, Morg.
Morg. Jour. Cin. Soc. **6**: 69. *d. pl. 4.* April 1883.
Cragin, Bull. Wash. Lab. **1**: 19. Sept. 1884.
Perry, Agricultural Student **6**: 179. May 1900 and Ohio Univ. Bull. IV. 30: 7. May 1900.
Clitocybe monadelpha, Morg.
Morg. Jour. Cin. Soc. **6**: 69. *d. pl. 4.* April 1883.
Sacc. Cub. & Manc. Syll. **5**: 164. *d.* 28 May 1887.
Kellerm. & Werner, Geol. Ohio **7**[2]: 303. Jan. 1895.
Pk. Rept. N. Y. Mus. **51**[1]: 284, 302. *d. pl. 51, f. 1–5.* 11 Feb. 1899.
Lloyd, Myc. Notes 17. *d.* April 1899.
Herbst, Fungal Fl. Lehigh Valley 44. *d.* 1899.
McIlvaine & Macadam, Am. Fung. 89. *d. pl. 27.* 1900.
Pk. Mem. N. Y. Mus. **3**: 140. *d. pl. 46, f. 7–12.* Nov. 1900.
Hyams, Bull. N. Car. Exp. Sta. 177: 38. Dec. 1900.
Wilcox, Bull. Okla. Exp. Sta. 49: 17. *d. pl. 6, 9, f. 17.* Feb. 1901.
Earle in Mohr, Contr. U. S. Nat. Herb. **6**: 226. 31 July 1901.
Williamson, Proc. Ind. Acad. **1900**: 164. 1901.
Earle, Torreya **3**: 60. 18 April 1903.
Clitocybe aquatica, Banning.
Banning in Pk. Rept. N. Y. Mus. **44**: 180 (68). *d.* Dec. 1891.
Sacc. Syll. **11**: 14. *d.* July 1895.

Armillaria melleorubens, B. & C.
B. & C. Jour. Linn. Soc. **10**: 283. *d.* 1869.
Sacc. Cub. & Manc. Syll. **5**: 81. *d.* 28 May 1887.
Agaricus melleorubens, B. & C.
B. & C. Jour. Linn. Soc. **10**: 283. *d.* 1869. West Indies.
Mastoleucomyces melleorubens, O. Kuntze.
Kuntze, O., Rev. Gen. Pl. **2**: 861. 1891.

Armillaria mucida (Schrad.) Fr.
Sacc. Cub. & Manc. Syll. **5**: 85. *d.* 28 May 1887.
Pk. Rept. N. Y. Mus. **43**: 90 (44). Oct. 1890.
Banning in Pk. Rept. N. Y. Mus. **44**: 187 (75). Dec. 1891.
McIlvaine & Macadam, Am. Fung. 58. *d.* 1900.
Agaricus mucidus, Schrad.
S. Syn. Car. 80 (54) no. 562. 1822.
S. Syn. Am. Bor. 145 no. 19. 1834.
Curtis, M. A., Bot. N. Car. 84. 1867.
Cke. Handbook 20. *d.* 1871.
Mastoleucomyces mucidus, O. Kuntze.
Kuntze, O., Rev. Gen. Pl. **2**: 861. 1891.

Armillaria nardosmia, Ell.

NOTE. The *Agaricus rhagadiosus* recorded by Peck, Rept. N. Y. Mus. **33**: 18. Oct. 1883 is stated by him in Rept. **43**: 87(41). Oct. 1890 to be the same as *Armillaria nardosmia,* Ell. Whether the latter should be considered distinct from the true *Armillaria rhagadiosa,* Fr. he thinks doubtful. Jelliffe states in a letter that his record of *Clitocybe rhagadiosa* is based upon the above citation of Peck. A. B. S.

Ell. Bull. Torr. Bot. Club **6**: 75. *d.* Feb. 1876.
Sacc. Cub. & Manc. Syll. **5**: 86. *d.* 28 May 1887.
Pk. Rept. N. Y. Mus. **43**: 87 (41). *d.* 91 (45). Oct. 1890.
Henn. in Engler & Prantl, Pflanzenfam. **1**^{1**}: 270. 1898.
Herbst, Fungal Fl. Lehigh Valley 37. *d.* 1899.
McIlvaine & Macadam, Am. Fung. 57. *d.* 1900.
*Shear, Ell. & Ev. Fung. Columb. *1401.* May 1901.
Agaricus nardosmius, Ell.
Ell. Bull. Torr. Bot. Club **6**: 75. *d.* Feb. 1876.
Ell. in Cat. Pl. N. J. 469. 1889.
Agaricus rhagadiosus, Pk. an Fr.?
Pk. Rept. N. Y. Mus. **33**: 18. Oct. 1883.
?Armillaria rhagadiosa.
Pk. Rept. N. Y. Mus. **43**: 88 (42). Oct. 1890.
Clitocybe rhagadiosus, Jelliffe.
Jelliffe, Flora of Long Island 42. 1899.
Mastoleucomyces nardosmius, O. Kuntze.
Kuntze, O., Rev. Gen. Pl. **2**: 861. 1891.

Armillaria ponderosa, Pk.
Pk. Bull. Buf. Soc. **1**: 42. *d.* July 1873.
Pk. Rept. N. Y. Mus. **26**: 50. *d.* April 1874.
Sacc. Cub. & Manc. Syll. **5**: 78. *d.* 28 May 1887.
Pk. Rept. N. Y. Mus. **43**: 87 (41) *d.* 91 (45). Oct. 1890.
Henn. in Engler & Prantl, Pflanzenfam. **1**^{1**}: 270. 1898.
McIlvaine & Macadam, Am. Fung. 54. *d.* 1900.
Hay, Bull. Nat. Hist. Soc. N. B. **5**: 115. 1903.
Agaricus ponderosus, Pk.
Pk. Bull. Buf. Soc. **1**: 42. *d.* July 1873.
Pk. Rept. N. Y. Mus. **26**: 50. *d.* April 1874.
Frost in Cat. Pl. Amherst 62. 1875.
Pk. Rept. N. Y. Mus. **29**: 66. 1878.
Cobb, List Pl. Amherst 31. 1887.
Agaricus magnivelaris, Pk.
Pk. Rept. N. Y. Mus. **29**: 66. 1878.
Mastoleucomyces ponderosus, O. Kuntze.
Kuntze, O., Rev. Gen. Pl. **2**: 861. 1891.

Armillaria ramentacea, (Bull.) Fr.
Sacc. Cub. & Manc. Syll. **5**: 76. *d.* 28 May 1887.
Pk. Rept. N. Y. Mus. **43**: 91 (45). Oct. 1890.
Agaricus ramentaceus, Bull.
Frost in Cat. Pl. Amherst 62. 1875.
Cobb, List Pl. Amherst 31. 1887.
Mastoleucomyces ramentaceus, O. Kuntze.
Kuntze, O., Rev. Gen. Pl. **2**; 860. 1891.

Armillaria rhagadiosa, Fr.
See ***Armillaria nardosmia,*** Ell.

Armillaria robusta, (A. & S.) Fr.
Pk. Rept. N. Y. Mus. **43**: 91 (45). Oct. 1890.
McIlvaine & Macadam, Am. Fung. 52. *d.* 1900.
Conant, Bull. Boston Myc. Club 19: 5 Feb. 1903.
Hay, Bull. Nat. Hist. Soc. N. B. **5**: 115. 1903.
Agaricus robustus, A. & S.
S. Syn. Car. 80 (54) no. 561. 1822.
S. Syn. Am. Bor. 145 no. 17. 1834.
Curtis, M. A., Bot. N. Car. 84. 1867.
Mastoleucomyces robustus, O. Kuntze.
Kuntze, O., Rev. Gen. Pl. **2**; 861. 1891.

Armillaria solidipes, Pk.
Pk. Bull. Torr. Bot. Club **27**: 611. *d.* 29 Dec. 1900.
Sacc. & Syd. Syll. **16**: 20. *d.* 1 Feb. 1902.

Armillaria umbilicata, (Pat.) Sacc. & Syd.
Sacc. & Syd. Syll. **16**: 19. *d.* 1 Feb. 1902.
" ***Armillariella umbilicata,*** Pat.
Pat. Bull. Soc. Myc. Fr. **15**: 191. *d.* 31 July 1899. West Indies.
Duss, Champ. Guad. & Martinique 52. 1903.

Armillaria viscidipes, Pk.
Pk. Rept. N. Y. Mus. **44**: 128 (16). *d. pl. 2, f. 1–3.* Dec. 1891.
Pk. Rept. N. Y. Mus. **46**: 134 (54). Dec. 1893.
Sacc. Syll. **11**: 7. *d.* July 1895
McIlvaine & Macadam, Am. Fung. 53. *d.* 1900.

Armillariella mellea, Karst.
See ***Armillaria mellea,*** (Vahl) Fr.

Armillariella umbilicata, Pat.
See ***Armillaria umbilicata,*** (Pat.) Sacc. & Syd.

Arrhenia tenella, Fr.

NOTE. The genus *Arrhenia* is differently limited by different writers. The species given below is placed by Quélet in *Dictyolus.* Otto Kuntze substitutes *Auriscalpium,* S. F. Gray for *Arrhenia,* Fr. but *Auriscalpium,* S. F. Gray is based on *Hydnum Auriscalpium,* L. which is an entirely different plant from *Arrhenia Auriscalpium,* Fr., the type of *Arrhenia.*

Sacc. Cub. & Manc. Syll. **5**: 499. *d.* 28 May 1887.*
Cantharellus tenellus, Fr.
S. Syn. Am. Bor. 153 no. 297. 1834.
Auriscalpium tenellum, O. Kuntze.
Kuntze, O., Rev. Gen. Pl. **3²**: 446. 1898.

Arrhytidia, B. & C.

NOTE. The genus *Arrhytidia* is placed by Patouillard, Essai Tax. 30. 1900 in *Guepiniopsis,* Pat. In regard to *Arrhytidia flava* given below an examination of the original specimen shows that although it belongs to the *Dacryomycetineæ* it does not seem to be a genuine *Guepiniopsis.* Whether *Arrhytidia* can be regarded as a good genus can not be satisfactorily determined until its development is better known.

B. & C. Hook. Jour. Bot. **1**: 235 (106). *d.* 1849.
B. & C. Am. Jour. Sci. II. **10**: 187. *d.* Sept. 1850.
Fr. Nova Acta R. Soc. Sci. Upsal. III. **1**: 114. 1851.
Sacc. Cub. & Manc. Syll. **6**: 804. *d.* 1 Aug. 1888.

Arrhytidia flava, B. & C.
B. & C. Hook. Jour. Bot. **1**: 235 (106). *d.* 1849. [Decades no. 224.]
B. & C. Am. Jour. Sci. II. **10**: 187. *d.* Sept. 1850.
Curtis, M. A., Bot. N. Car. 101. 1867.
B. Grev. **1**: 70 (18). *d.* Nov. 1872.
Sacc. Cub. & Manc. Syll. **6**: 805. *d.* 1 Aug. 1888.
Underw. & Earle, Bull. Ala. Exp. Sta. 80: 222. 28 June 1897.
Henn. in Engler & Prantl, Pflanzenfam. **1¹****: 102. 1898.
Earle in Mohr, Contr. U. S. Nat. Herb. **6**: 196. 31 July 1901.

Arrhytidia fulva, B. & C.
Curtis, M. A., Bot. N. Car. 101. 1867.
B. Grev. **1**: 70 (18) no. 171. *d.* Nov. 1872.
Sacc. Cub. & Manc. Syll. **6**: 805. *d.* 1 Aug. 1888.
Underw. & Earle, Bull. Ala. Exp. Sta. 80: 222. 28 June 1897.
Henn. in Engler & Prantl, Pflanzenfam. **1¹****: 102. 1898.
Earle in Mohr, Contr. U. S. Nat. Herb. **6**: 196. 31 July 1901.

Arthrinium caricicolum, Kze.
S. Syn. Am. Bor. 278 no. 2612. 1834.
Cke. Bull. Buf. Soc. **3**: 201. July 1877.

Arthrinium curvatum, Kze.
See ***Camptoum curvatum,*** (Kze.) Lk.

Arthrinium sporophlœum, Kze.
Sporophlœum gramineum, Lk.
S. Syn. Am. Bor. 278 no. 2615. 1834.
Cke. Bull. Buf. Soc. **3**: 201. July 1877.

Arthonia confluens, Auct. Amer. p. p.

NOTE. The genus *Arthonia* has usually been considered to belong to lichens although some modern writers consider that at least part of the species should be regarded as fungi. In the two citations given below *Peziza pruinata,* S. is said to be *Arthonia confluens,* a statement difficult to understand since *P. pruinata* is properly considered to be a synonym of *Solenia poriæformis,* (P.) Fckl. and is not related in the least to *Arthonia.*

Furthermore from the citations below it is not possible to say which of the several species known at different times under the name *Arthonia confluens* is referred to. Apparently as used by lichenologists at the present day that name is a synonym of different species of *Opegrapha* and *Graphis.*

For North American species of *Arthonia* from a lichenological point of view see Synopsis of the Genus *Arthonia* by Henry Willey, 1890.

Cke. Bull. Buf. Soc. **2**: 293. March 1875.
B. Grev. **3**: 156 (134). June 1875.

Arthrobotrys, Cda.
Pound & Clements, Minn. Bot. Studies **9**: 664. *d.* 30 Nov. 1896.

Arthrobotrys oligospora, Fres.
See ***Arthrobotrys superba,*** Cda., var. ***oligospora,*** (Fres.) Coem.

Arthrobotrys rosea, Massee.
Patterson, Bull. U. S. Agr. Pl. Industry 8: 27. 3 Feb. 1902.

Arthrobotrys superba, Cda., var. **oligospora,** (Fres.) Coem.
Pound, Bot. Surv. Nebr. 3: 11. 18 June 1894.
Arthrobotrys oligospora, Fres.
Farl. Bull. Bussey Inst. **1**: 439. March 1876.

Arthrobotryum, Ces.

NOTE. The genus *Arthrobotryum,* attributed by various mycologists to Cesati, was originally described, although rather vaguely, in Klotzsch Herb. Viv. Myc. no. *1821.* 1854, under the generic name *Arthrographium* and the description was repeated in Bot. Zeit. **12**: 186. 1854. In both places is quoted the figure in Hedwigia **1**: *pl. 4, f. 3* (error for *f. 1*) which is called *Arthrobotryum stilboides* without notes or description. As it is doubtful whether the generic characters as understood by Cesati could be recognized from the figure alone it might be questioned whether *Arthrographium* should not replace *Arthrobotryum.* Since the latter name has been constantly used by subsequent mycologists, not always perhaps in the same sense as used by Cesati, we have not thought it best to abandon the name.

Some of the North American species which have been by some writers included in *Arthrobotryum* do not appear to us to be congeneric with *A. stilboides,* especially those here referred to *Arthrosporium.*

Whether *Didymobotryum,* Sacc. Syll. **4**: 626. *d.* 10 April 1886 should be considered distinct from *Arthrobotryum* is so far as North American species are concerned doubtful and we have placed the North American species of *Didymobotryum* under the present genus.

Pound & Clements, Minn. Bot. Studies **9**: 728. *d.* 31 May 1897.

Arthrobotryum atrocephalum, (Ell.) Sacc.
Sacc. Syll. **4**: 630. *d.* 10 April 1886.
Stilbum atrocephalum, Ell.
Ell. Bull. Torr. Bot. Club **6**: 107. *d.* Sept. 1876.
Ell. in Cat. Pl. N. J. 572. 1889.
Wettsteiniella atrocephala, O. Kuntze.
Kuntze, O., Rev. Gen. Pl. **2**: 875. 1891.

Arthrobotryum compositum, Pound & Clements.
See ***Arthrosporium compositum,*** Ell.

Arthrobotryum didymum, (Cke.) Pound & Clements.

NOTE. We have not been able to examine an authentic specimen of this species but the spores are said to be 1-septate and for this reason it is placed by Saccardo in *Didymobotryum*. Since however *D. pubescens* is to be referred to *Arthrobotryum* we have preferred to place this species also in *Arthrobotryum* since, judging from the described species, the grounds on which *Didymobotryum* is separated from *Arthrobotryum* seem hardly adequate.

Pound & Clements, Minn. Bot. Studies **9**: 728. 31 May 1897.
Stilbum didymum, Cke.
Cke. Grev. **7**: 34. *d.* Sept. 1878.
Didymobotryum Cookei, Sacc.
Sacc. Syll. **4**: 626. *d.* 10 April 1886.
Lindau in Engler & Prantl, Pflanzenfam. **1**1**: 496. Feb. 1900.

Arthrobotryum fusisporium, A. L. Smith.
Smith, A. L., Jour. Linn. Soc. **35**: 13. *d. pl. 1, f. 13–15.* 1 April 1901. West Indies.
Sacc. & Syd. Syll. **16**: 1158. 1 Feb. 1902.

Arthrobotryum Melanoplaca, B. & C.

NOTE. This seems to be the conidia of a species of *Meliola*, possibly *M. penicilliformis*, Gaillard described on *Psychotria* from South America. See Gaillard, Le Genre Meliola 57. *pl. 6, f. 2.* 1892.

B. & C. Jour. Linn. Soc. **10**: 360. *d.* 1869. West Indies.
Sacc. Syll. **4**: 629. *d.* 10 April 1886.
Wettsteiniella Melanoplaca, O. Kuntze.
Kuntze, O., Rev. Gen. Pl. **2**: 875. 1891.

Arthrobotryum pubescens, (C. & E.) Pound & Clements.

NOTE. The spores of this species as figured in Grev. **6**: *pl. 96, f. 38* are two-celled but mature spores as shown in N. A. F. *2488* are four-celled and dark colored and the species belongs to *Arthrobotryum* rather than to *Didymobotryum* where it is placed by Saccardo.

Pound & Clements, Minn. Bot. Studies **9**: 728. 31 May 1897.
Graphium pubescens, C. & E.
C. & E. Grev. **6**: 5. *d. pl. 96, f. 38.* Sept. 1877.
Ell. in Cat. Pl. N. J. 573. 1889.
*Ell. & Ev. N. A. F. *2488.* 1890.
Didymobotryum pubescens, Sacc.
Sacc. Syll. **4**: 627. *d.* 10 April 1886.
Lindau in Engler & Prantl, Pflanzenfam. **1**1**: 496. Feb. 1900.

Arthrobotryum robustum, C. & E.
C. & E. Grev. **7**: 7. *d.* Sept. 1878.
Sacc. Syll. **4**: 629. *d.* 10 April 1886.
Ell. in Cat. Pl. N. J. 573. 1889.
Wettsteiniella robusta, O. Kuntze.
Kuntze, O., Rev. Gen. Pl. **2**: 875. 1891.

Arthromitus, Leidy.
Leidy, Proc. Phil. Acad. **4**: 227. *d.* 9 Oct. 1849 and **5**: 36. 30 April 1850.
Leidy, Smithsonian Contrib. **5**[2]: 33. *d.* 34. April 1853.

Arthromitus cristatus, Leidy.
Leidy, Proc. Phil. Acad. **4**: 227 *d.* 9 Oct. 1849.
Leidy, Smithsonian Contrib. **5**[2]: 34. *d. pl. 2, f. 1[i]. pl. 5, f. 3[d], 14–15. pl. 6, f. 5[e]. pl. 8, f. 1[b], 2[d], 3, 4, 5.* April 1853.
Arthromitus nitidus, Leidy.
Leidy, Proc. Phil. Acad. **5**: 35. *d.* 30 April 1850.

Arthromitus nitidus, Leidy.
See ***Arthromitus cristatus,*** Leidy.

Arthrosporium compositum, Ell.
*Ell. N. A. F. *415*. 1880.
Ell. Bull. Torr. Bot. Club **8**: 64. *d.* June 1881.
Sacc. Syll. **4**: 598. *d.* 10 April 1886.
Ell. in Cat. Pl. N. J. 573. 1889.
Morg. Bot. Gaz. **15**: 85. April 1890.
*Barthol., Ell. & Ev. Fung. Columb. *1711*. Feb. 1903.
Arthrobotryum compositum, Pound & Clements.
Pound & Clements, Minn. Bot. Studies **9**: 728. 31 May 1897.

Artocreas Micheneri, B. & C.
See ***Aleurodiscus Micheneri,*** (B. & C.) Massee.

Artotrogus, Mont.

NOTE. We here refer the species of *Artotrogus* to ***Pythium,*** Pringsh. for the reason that by any other course we should increase bibliographical difficulties already very great. The original *Artotrogus* of Montagne in B. Jour. Hort. Soc. London **1**: 33. *pl. 4, f. 27–29.* 1846 and Gard. Chron. **1845**: 640. 20 Sept. 1845 was very vaguely described and even with the more detailed information given by DeBary who examined Montagne's material one is not able to say with certainty what the type species, *Artotrogus hydnosporus*, Mont. really was.

Otto Kuntze in Rev. Gen. Pl. **3**[2]: 443. 1898 refers to *Artotrogus*, Fr. S. O. V. 497. 1825. Fries was not the author of the genus. The citation in Kuntze is an error and should have been Fries, Summa Veg. Scand. 497. 1849 in which place Fries refers to Montagne as the author of the genus adding a second species now known to be the conidial form of *Nyctalis lycoperdoides,* (Bull.) Schrt.

Pythium as defined by Pringsheim is a genus whose characters are sufficiently well recognized at the present day and the genus is adopted by nearly all modern writers. The intricacies of the synonymy of the genus *Pythium* as used by writers previous to Pringsheim are so great that it would be a fruitless labor to attempt to straighten them out and it seems to be the part of wisdom to retain the *Pythium* of Pringsheim which has been in general use since 1858.

Artotrogus DeBaryanus, Atk.
See ***Pythium DeBaryanum,*** Hesse.

Artotrogus intermedius, Atk.
See ***Pythium intermedium,*** D By.

Artotrogus, sp. indet.
See ***Pythium,*** sp. indet.

Aschersonia, Mont.

NOTE. For note on the validity of the genus *Aschersonia* see Hennings, 1904.

Henn. Festschrift Ascherson 71, 72. 1904.

Underwoodina, O. Kuntze.
Kuntze, O., Rev. Gen. Pl. **3²**: 538. 1898.

Aschersonia Aleyrodis, Webber.
Webber, Proc. Fla. Hort. Soc. **9**: 73. 1896?
Webber, Bull. U. S. Agr. V. P. P. 13: 20, 21. *d. pl. 2, f. 8. pl. 3, f. 10–16. pl. 4, f. 17–23.* 17 June 1897.
Lindau & Syd. Hedw. **37**: Beibl. 7: xlix. 9 April 1898.
Sacc. & Syd. Syll. **14**: 991. *d.* 20 Aug. 1899.
Lindau in Engler & Prantl, Pflanzenfam. **1¹****: 385. Jan. 1900.
Hume, Bull. Fla. Exp. Sta. 53: 164. March 1900.
Gossard, Bull. Fla. Exp. Sta. 67: 622. June 1903.
Henn. Festschrift Ascherson 69. 1904.
Aschersonia Tahitensis, Webber non Mont.
Cockerell, Jour. Inst. Jamaica **1**: 262. April 1893.
Webber, Jour. Myc. **7**: 364. Nov. 1894.
Swingle & Webber, Bull. U. S. Agr. V. P. P. 8: 27. *pl. 7, f. 2.* 1896.

Aschersonia basicystis, B. & C.

NOTE. The original specimens which we have examined although young show that this is really an *Aschersonia* and can not be placed in the genus *Bizzozeriella.*

B. & C. Jour. Linn. Soc. **10**: 352. *d.* 1869. West Indies.
Sacc. Syll. **3**: 619. *d.* 15 Dec. 1884.
Sacc. Syll. **10**: 717. 30 June 1892.
Henn. Festschrift Ascherson 68. 1904.
Bizzozeriella basicystis, O. Kuntze.
Kuntze, O., Rev. Gen. Pl. **3²**: 538. 1898.

Aschersonia carpinicola, Ell. & Dearn.
See ***Discella discoidea,*** C. & P.

Aschersonia Cubensis, B. & C.
B. & C. Jour. Linn. Soc. **10**: 351. *d.* 1869. West Indies.
Sacc. Syll. **3**: 620. *d.* 15 Dec. 1884.
Henn. Festschrift Ascherson 68. 1904.

Aschersonia marginata, Ell. & Ev.
Ell. & Ev. Bull. Torr. Bot. Club **22**: 436. *d.* 31 Oct. 1895. Hawaii.
Sacc. Hedw. **35**: Rep. 7: xliv. 25 Feb. 1896.
Sacc. & Syd. Syll. **14**: 989. *d.* 20 Aug. 1899.
Henn. Festschrift Ascherson 68, 69. 1904. West Indies.

Aschersonia oxyspora, B.

NOTE. This name was originally written *Aschersonia oxystoma,* B. Hook. Jour. Bot. **6**: 205 (1). *d.* 1854. [Decades 463] but for some reason unknown to us Berkeley and subsequent writers have written *A. oxyspora.*

Duss, Champ. Guad. & Martinique 89. 1903. West Indies.

Aschersonia paraphysata, Sacc.
Henn. Festschrift Ascherson 68. 1904. West Indies.

Aschersonia Pittieri, Henn.
Henn. Hedw. Beibl. **41**: (104). *d.* 23 June 1902. Cent. Amer.
Henn. Festschrift Ascherson 69. 1904. West Indies.

Aschersonia rufa, (B. & Br.) Sacc.
*Smith, C. L., Cent. Amer. Fungi *46.* 1896. Cent. Amer.

Aschersonia Tahitensis, Webber non Mont.
See ***Aschersonia Aleyrodis,*** Webber.

Aschersonia turbinata, B.
B. Ann. Nat. Hist. II. **9**: 199. *d.* March 1852.
Sacc. Syll. **3**: 619. *d.* 15 Dec. 1884.
*Ell. & Ev. N. A. F. *2172.* Feb. 1889.
Cockerell, Bull. Torr. Bot. Club **20**: 296. 15 July 1893.
Webber, Bull. U. S. Agr. V. P. P. 13: 31. *d. pl. 4, f. 24, 25. pl. 5, f. 26.* 17 June 1897.
Duss, Champ. Guad. & Martinique 89. 1903.
Henn. Festschrift Ascherson 68. 1904.

Aschersonia viridans, (B. & C.) Pat.
Pat. Bull. Soc. Myc. Fr. **7**: 48 (9). *d.* 1891.
Henn. Festschrift Ascherson 68. 1904.
Hypocrea viridans, B. & C.
B. & C. Jour. Linn. Soc. **10**: 376. *d.* 1869. West Indies.
Sacc. Syll. **2**: 532. *d.* 13 June 1883.
Clintoniella viridans, Sacc. & Syd.
Sacc. & Syd. Syll. **16**: 588. 1 Feb. 1902.

Aschersonia, sp. indet.
Webber, Proc. Fla. Hort. Soc. **8**: 49. 1895.
Millsp. & Nutt. Publ. Field Columb. Mus. Bot. **1**: 120. *d.* Jan. 1896.
Massee, Textbk. Pl. Diseases 102. 1899.

Ascobolus ærugineus, Fr.
Hark. & Moore, Cat. Pac. Fung. 38. Feb. 1880.

Ascobolus atrofuscus, Phil. & Plowr.
Hark. & Moore, Cat. Pac. Fung. 38. Feb. 1880.
Lindau in Engler & Prantl, Pflanzenfam. **1**[1]: 193. Dec. 1894.
Pound & Clements, Bot. Surv. Nebr. 5: 22. 30 March 1901.
Durand, Bull. Torr. Bot. Club **29**: 458. *d.* 25 July 1902 and Rev. Myc. **24**: (12). Oct. 1902.
Pk. Rept. N. Y. Mus. **56**[4]: 31. May 1903. [Bull. 67.]
Seaver, Bull. Univ. Iowa **5**[4]: 240 (13), 283 (56). *d. pl. 15, f. 1.* Nov. 1904.
Seaver, Proc. Iowa Acad. **12**: 114. July 1905.
Phæopeziza Nuttallii, Ell. & Ev.
*Ell. & Ev. N. A. F. *2908.* Oct. 1893.

Ascobolus brunneus, Cke.
Cke. Grev. **5**: 153. June 1877.
Underw. & Earle, Bull. Ala. Exp. Sta. 80: 200. 28 June 1897.
Earle in Mohr, Contr. U. S. Nat. Herb. **6**: 157. 31 July 1901.
Morg. Jour. Myc. **8**: 182. 20 Dec. 1902.
Seaver, Proc. Iowa Acad. **12**: 115. July 1905.

Ascobolus carbonarius, Karst.
Millsp. & Nutt. Publ. Field Columb. Mus. Bot. **1**: 152. Jan. 1896.

Ascobolus carneus, P.
See ***Ascophanus carneus,*** (P.) Bond.

Ascobolus ciliatus, Schm.
See ***Lasiobolus equinus,*** (Muell.) Karst.

Ascobolus conglomeratus, S.
See ***Angelina rufescens,*** (S.) Duby.

Ascobolus crenulatus, Karst.
Pk. Rept. N. Y. Mus. **30**: 62. Sept. 1878.
Sacc. Syll. **8**: 515. *d.* 20 Dec. 1889.

Ascobolus Cubensis, B. & C.
B. & C. Jour. Linn. Soc. **10**: 370. *d.* 1869. West Indies.
Sacc. Syll. **8**: 516. *d.* 20 Dec. 1889.

Ascobolus furfuraceus, P.
See ***Ascobolus stercorarius,*** (Bull.) Rehm.

Ascobolus glaber, P.
S. Syn. Car. 124 (98) no. 1269. 1822.
S. Syn. Am. Bor. 178 no. 958. 1834.
Curtis, M. A., Bot. N. Car. 135. 1867.
Cke. Handbook 728. *d.* 1871.
Cke. Bull. Buf. Soc. **2**: 300. March 1875.
*Ell. & Ev. N. A. F. *2333.* 1890.
Rehm, Rabh. Krypt.-Fl. **1**[3]: 1122. *d.* May 1895.
Seaver, Bull. Univ. Iowa **5**[4]: 280 (53). *d. pl. 16, f. 2.* Nov. 1904.
Seaver, Proc. Iowa Acad. **12**: 114. July 1905.

Ascobolus immersus, P.
S. Syn. Am. Bor. 178 no. 959. 1834.
Cke. Bull. Buf. Soc. **2**: 300. March 1875.
Hark. & Moore, Cat. Pac. Fung. 38. Feb. 1880.
Seaver, Bull. Univ. Iowa **5**[4]: 234 (7), 238 (11), 281 (54). *d. pl. 16, f. 1.* Nov. 1904.
Seaver, Proc. Iowa Acad. **12**: 114. July 1905.

Ascobolus incanus, Phil.
See ***Ascophanus incanus,*** (Phil.) Sacc.

Ascobolus Kerverni, Crouan.
See ***Saccobolus Kerverni,*** (Crouan) Boud.

Ascobolus Leveillei, Boud., var. **Americanus,** C. & E.
C. & E. Grev. **5**: 52. *d. pl. 80, f. 20.* Dec. 1876.
Ell. in Cat. Pl. N. J. 554. 1889.
Rehm, Rabh. Krypt.-Fl. **1**[3]: 1124. *d.* May 1895.

Ascobolus major, B. & C.
Curtis, M. A., Bot. N. Car. 135. 1867.
B. Grev. **4**: 6 (144) no. 772. *d.* Sept. 1875.
Cke. Bull. Buf. Soc. **3**: 23. Sept. 1875.
Sacc. Syll. **8**: 519. *d.* 20 Dec. 1889.

Ascobolus papillatus, Wallr.
See ***Lasiobolus equinus,*** (Muell.) Karst.

Ascobolus pilosus, Fr.
See ***Lasiobolus equinus,*** (Muell.) Karst.

Ascobolus polysporus, Karst.
See ***Rhyparobius polysporus,*** (Karst.) Sacc.

Ascobolus purpurascens, (P.) Calkins.

NOTE. This may possibly be ***Humaria purpurascens,*** (P.) Quél.

Calkins, Jour. Myc. **2**: 106. Sept. 1886.

Ascobolus raripilus, Phil.
See ***Lasiobolus raripilus,*** (Phil.) Sacc.

Ascobolus stercorarius, (Bull.) Rehm.
Rehm, Rabh. Krypt.-Fl. **1**[3]: 1126. *d.* May 1895.
Pound & Clements, Bot. Surv. Nebr. 5: 22. 30 March 1901.
Ascobolus furfuraceus, P.
S. Syn. Car. 124 (98) no. 1270. 1822.
Grev. Scot. Crypt. Fl. **6**: *pl. 307.* 1828.
S. Syn. Am. Bor. 178 no. 957. 1834.
Curtis, M. A., Bot. N. Car. 135. 1867.
Cke. Handbook 727. *d. f. 338.* 1871.
Cke. Bull. Buf. Soc. **2**: 300. March 1875.

B. Grev. **4**: 6 (144). Sept. 1875.
Frost in Cat. Pl. Amherst 91. 1875.
Farl. Bull. Bussey Inst. **1**: 438. March 1876.
Phil. Grev. **5**: 36. Sept. 1876.
Cke. Grev. **7**: 47. Dec. 1878.
Pk. Rept. N. Y. Mus. **29**: 56. 1878.
*Rav. Fung. Am. *312*. 1879.
Hark. & Moore, Cat. Pac. Fung. 38. Feb. 1880.
B. Jour. Linn. Soc. **17**: 16. 1880.
Rehm, Asc. Lojk. 31. *d*. 1882.
*Rav. Fung. Am. *632*. 1882.
Pk. in Day's Cat., Bull. Buf. Soc. **4**: 222 (158). 1883.
Bessey, Bull. Iowa Agr. Coll. **1884**: 142. Jan. 1885.
Cobb, List Pl. Amherst 47. 1887.
Langlois, Cat. Pl. La. 27. 1887.
Bennett, Cat. Pl. R. I. 92. 1888.
Sacc. Syll. **8**: 516. *d*. 20 Dec. 1889.
Ell. in Cat. Pl. N. J. 554. 1889.
Millsp. & Nutt. Publ. Field Columb. Mus. Bot. **1**: 152. Jan. 1896.
Harper, Jahrb. Wiss. Bot. **29**: 678. *pl. 12, f. 41–46*. 1896.
McClatchie, Proc. S. Cal. Acad. **1**: 364. 5 June 1897.
Harper, Ann. Bot. **13**: 515. Dec. 1899.
Fairman, Proc. Rochester Acad. **3**: 218. March 1900.
Durand, Bull. Torr. Bot. Club **27**: 481. 29 Sept. 1900.
Morg. Jour. Myc. **8**: 182. *d*. 20 Dec. 1902.
Seaver, Bull. Univ. Iowa **5**[4]: 233 (6), 282 (55). *d. pl. 15, f. 2*. Nov. 1904.
Rostr. Meddelelser om Groenl. **30**: 120. 1904.
Seaver, Proc. Iowa Acad. **12**: 114. July 1905.

Ascobolus stercorarius, (Bull.) Rehm, var. **retispora,** Clements.
Pound & Clements, Bot. Surv. Nebr. 5: 9. *d*. 30 March 1901.
Sacc. & Syd. Syll. **16**: 1149. 1 Feb. 1902.

Ascobolus Trifolii, Biv.
See ***Pseudopeziza Trifolii,*** (Biv.) Fckl.

Ascobolus vicinus, Cke.
See ***Ascophanus vicinus,*** Boud.

Ascobolus vinosus, B.
*Ell. & Ev. N. A. F. *2620*. 1891.
Rehm, Rabh. Krypt.-Fl. **1**[3]: 1123. *d*. May 1895.

Ascobolus viridis, Curr.
Pk. Rept. N. Y. Mus. **30**: 62. Sept. 1878.
Sacc. Syll. **8**: 519. *d*. 20 Dec. 1889.
Seaver, Proc. Iowa Acad. **12**: 114. July 1905.

Ascochyta, Lib.
Tassi, Bull. Lab. Bot. Siena **5**: 40. *pl. 1, f.* 1902.

Ascochyta achlyeola, Ell. & Ev.
Ell. & Ev. Proc. Phil. Acad. **1894**: 364. *d*. 30 Nov. 1894.
Sacc. Syll. **11**: 522. *d*. July 1895.

Ascochyta Alismatis, Ell. & Ev.
See ***Ascochyta Alismatis,*** (Oud.) Trail.

Ascochyta Alismatis, (Oud.) Trail.
*Ell. & Ev. N. A. F. *2380*. 1890.
Davis, J. J., Tr. Wis. Acad. **14**: 94. Sept. 1903.
Ascochyta Alismatis, Ell. & Ev.
Ell. & Ev. Jour. Myc. **5**: 148. *d*. Sept. 1889.
Sacc. Syll. **10**: 307. *d*. 30 June 1892.

Ascochyta ampelina, Sacc.
Trel. Tr. Wis. Acad. **6**: 121 (17). Nov. 1884.

Ascochyta Asclepiadis, Ell. & Ev.
Ell. & Ev. Proc. Phil. Acad. **1894**: 364. *d.* 30 Nov. 1894.
*Ell. & Ev. N. A. F. *3265*. 24 April 1895.
Sacc. Syll. **11**: 524. *d.* July 1895.

Ascochyta Atriplicis, Lasch.
See ***Septoria Atriplicis,*** (Westd.) Fckl.
See also ***Phyllosticta Atriplicis,*** Desm.

Ascochyta baccæ, Rostr.
Rostr. Meddelelser om Groenl. **3**: 625. *d.* 1891.
Sacc. Syll. **11**: 524. *d.* July 1895.

Ascochyta Carthagenensis, Sacc.
Sacc. Mich. **2**: 144. *d.* April 1880.
Sacc. Syll. **3**: 395. *d.* 15 Dec. 1884.

Ascochyta Cassandræ, Pk.
Pk. Rept. N. Y. Mus. **38**: 94. *d.* 1885.
Berl. & Vogl. in Sacc. Syll. Add. **1–4**: 329. *d.* 31 Dec. 1886.
Sacc. Syll. **10**: 295. *d.* 30 June 1892.
Rostr. Meddelelser om Groenl. **18**: 69 (27). *d.* 1894.
Rostr. Meddelelser om Groenl. **18**: 482. 1895.
Davis, J. J., Tr. Wis. Acad. **11**: 171. Aug. 1897.

Ascochyta Cephalanthi, Ell. & Ev.
Sacc. Syll. **3**: 392. *d.* 15 Dec. 1884.
Langlois, Cat. Pl. La. 27. 1887.

Ascochyta clematidina, Thm.
Millsp. & Nutt. Publ. Field Columb. Mus. Bot. **1**: 116. Jan. 1896.

Ascochyta colorata, Pk.
See ***Ascochyta Fragariæ,*** Sacc.

Ascochyta confusa, Ell. & Ev.
Ell. & Ev. Jour. Myc. **10**: 168. *d.* 24 June 1904.

Ascochyta cornicola, Sacc.
Ell. & Ev. Jour. Myc. **5**: 148. *d.* Sept. 1889.
Davis, J. J., Tr. Wis. Acad. **9**: 166. 21 Aug. 1893.
James, Jour. Cin. Soc. **18**: 55. Dec. 1895.

Ascochyta coronaria, Ell. & J. J. Davis.
Davis, J. J., Tr. Wis. Acad. **14**: 94. *d.* Sept. 1903.
*Barthol., Ell. & Ev. Fung. Columb. *1807*. 28 Dec. 1903.

Ascochyta Dianthi, (A. & S.) Lib.
Rostr. Meddelelser om Groenl. **18**: 69 (27). *d.* 1894.
Sphæria Dianthi, A. & S.
S. Syn. Car. 47 (21) no. 222. 1822.
S. Syn. Am. Bor. 226 no. 1817. 1834.

Ascochyta Diapensiæ, Rostr.
Rostr. Meddelelser om Groenl. **18**: 70 (28). *d.* 1894.
Sacc. Syll. **11**: 524. *d.* July 1895.
Lindau in Engler & Prantl, Pflanzenfam. **1**^{1**}: 367. Dec. 1899.

Ascochyta Ellisii, Thm.
See ***Guignardia Bidwellii,*** (Ell.) Viala & Ravaz.

Ascochyta Fagopyri, Bres.

NOTE. This species reported on leaves of *Fagopyrum* is said to be distinct from *Ascochyta Fagopyri*, Thm. & Boll. on stems which antedates it. Consequently the name given by Bresadola is changed in Sacc. & Syd. Syll. **14**: 948. 20 Aug. 1899 to *Ascochyta Bresadolæ*, Sacc. & Syd. but Thuemen's

species is referred to *Diplodina Fagopyri*, (Thm. & Boll.) Allescher in Rabh. Krypt.-Fl. 1^6: 643, 686. 1900.

Orton, Rept. Vt. Exp. Sta. **12**: 171. Dec. 1899 and Contr. Bot. Vt. 7: 171. Dec. 1899.

Ascochyta Fragariæ, Sacc.
Scribner, Rept. U. S. Agr. **1887**: 338. 1888.
Dudley, Bull. Cornell Exp. Sta. 14: 182, 183. *f. 10.* Dec. 1889.
Halsted, Rept. N. J. Exp. Sta. **1893**: 329. 1894.
Tubeuf-Smith, Diseases of Plants 473. 1897.
Sturgis, Rept. Conn. Exp. Sta. **24**: 288. 1901.
Clint. Rept. Conn. Exp. Sta. **27**: 360. May 1904.
Ascochyta colorata, Pk.
Pk. Rept. N. Y. Mus. **38**: 94. *d. pl. 2, f. 9, 10.* 1885.
Berl. & Vogl. in Sacc. Syll. Add. **1–4**: 331. *d.* 31 Dec. 1886.
Kelsey, Jour. Myc. **5**: 81. June 1889.
Comes, Critt. Agr. **1**: 475. 1891.
Sacc. Syll. **10**: 302. *d.* 30 June 1892.
Allescher in Rabh. Krypt.-Fl. 1^6: 644. *d.* 1900.

Ascochyta Fraseræ, Ell. & Ev.
See ***Diplodina Fraseræ***, (Ell. & Ev.) Tracy & Earle.

Ascochyta Fremontiæ, Hark.
Hark. Bull. Cal. Acad. **2**: 439. *d.* 16 June 1887.
Sacc. Syll. **10**: 297. *d.* 30 June 1892.

Ascochyta graminicola, Sacc.
McClatchie in Reid's Hist. Pasadena 616. 1895.
McClatchie, Proc. S. Cal. Acad. **1**: 374. 5 June 1897.

Ascochyta Hanseni, Ell & Ev.
Ell. & Ev. Bull. Torr. Bot. Club **24**: 464. *d.* 30 Oct. 1897.
*Ell. & Ev. N. A. F. *3553.* 24 Jan. 1898.
Lindau & Syd. Hedw. **37**: Beibl. 7: xlvi. 9 April 1898.
*Ell. & Ev. Fung. Columb. *1255.* May 1898.
Sacc. & Syd. Syll. **14**: 946. *d.* 20 Aug. 1899.

Ascochyta (?) infuscans, Ell. & Ev.
Ell. & Ev. Jour. Myc. **5**: 148. *d.* Sept. 1889.
Sacc. Syll. **10**: 301. *d.* 30 June 1892.

Ascochyta Ledi, Rostr.
Rostr. Meddelelser om Groenl. **3**: 570. *d.* 1888 and Bot. Centralbl. **36**: 7. *d.* 1888.
Rostr. Meddelelser om Groenl. **3**: 625. 1891.
Sacc. Syll. **10**: 295. *d.* 30 June 1892.

Ascochyta Leonuri, Ell. & Dearness.
Ell. & Dearness, Proc. Can. Inst. **1**: 92. *d.* Sept. 1897.
Sacc. & Syd. Syll. **14**: 946. *d.* 20 Aug. 1899.

Ascochyta lethalis, Ell. & Barthol.
*Barthol., Ell. & Ev. Fung. Columb. *1808. d.* 28 Dec. 1903.

Ascochyta Lophanti, J. J. Davis.
Davis, J. J., Tr. Wis. Acad. **14**: 95. *d.* Sept. 1903.

Ascochyta Lycopersici, Brun.
Stevens, F. L., Rept. Ohio Acad. **5**: 63. 1897.
Smith, C. O., Jour. Myc. **10**: 98, 99. *d. f. 1–6.* 31 May 1904.

Ascochyta Mali, Ell. & Ev.
Ell. & Ev. Bull. Torr. Bot. Club **27**: 56. *d.* 17 Feb. 1900.
Sacc. & Syd. Syll. **16**: 930. *d.* 1 Feb. 1902.

Ascochyta Menziesii, Ell. & Ev.
McClatchie in Reid's Hist. Pasadena 616. 1895.
McClatchie, Proc. S. Cal. Acad. **1**: 374. 5 June 1897.

Ascochyta Oxybaphi, Trel.
Trel. Tr. Wis. Acad. **6**: 121 (17). *d.* Nov. 1884 and Jour. Myc. **1**: 14. *d.* Jan. 1885.
Berl. & Vogl. in Sacc. Syll. Add. **1–4**: 332. *d.* 31 Dec. 1886.
Sacc. Syll. **10**: 306. *d.* 30 June 1892.

Ascochyta Oxytropidis, Schrt.
Schrt. Ber. Schl. Ges. **1887**: 283. *d.* 1887 and Bot. Centralbl. **35**: 291. 1888.
Sacc. Syll. **10**: 304. *d.* 30 June 1892.

Ascochyta parasitica, Fautr.
Clint. Rept. Conn. Exp. Sta. **27**: 326. May 1904.

Ascochyta Paulowniæ, Sacc. & Brun.
Patterson, Bull. U. S. Agr. Pl. Industry 8: 23. 3 Feb. 1902.

Ascochyta Petuniæ, Speg.
Halsted, Gard. & Forest **5**: 141. *d.* 23 March 1892.

Ascochyta Pisi, Lib.
Hark. Bull. Cal. Acad. **1**: 160. 7 March 1885.
Hark. Bull. Cal. Acad. **1**: 261 (6). 19 Nov. 1885.
Gall. Bull. U. S. Agr. Veg. Pathol. 11: 88. 1890.
Davis, J. J., Tr. Wis. Acad. **9**: 166. 21 Aug. 1893.
Halsted, Rept. N. J. Exp. Sta. **1893**: 358, 361. *f. 31.* 1894.
Tracy & Earle, Bull. Miss. Exp. Sta. 34: 109. *d.* May 1895.
Halsted, Rept. N. J. Exp. Sta. **1894**: 351. 1895.
Halsted, Bull. Penn. Dept. Agr. 28: 17. 1897.
Halsted, Rept. N. J. Exp. Sta. **1897**: 323, 360. 1898.
Powell, Bull. Del. Exp. Sta. 41: 8. 1898.
Selby, Bull. Ohio Exp. Sta. 121: 42. Sept. 1900.
Allescher in Rabh. Krypt.-Fl. 1^6: 658. *d.* 1900.
Sturgis, Rept. Conn. Exp. Sta. **23**: 280. 1900.
Sturgis, Rept. Conn. Exp. Sta. **24**: 278. 1901.
Clint. Rept. Conn. Exp. Sta. **27**: 337. May 1904.

Ascochyta Primulæ, Trail.
Halsted, Rept. N. J. Exp. Sta. **1894**: 380. *f. 61.* 1895.

Ascochyta Quercus, Sacc. & Speg.
Trel. Tr. Wis. Acad. **6**: 121 (17). Nov. 1884.

Ascochyta Quercuum, (Cke.) Sacc.
Sacc. Syll. **3**: 393. *d.* 15 Dec. 1884.
Allescher in Rabh. Krypt.-Fl. 1^6: 661. 1900.
Sphærellopsis Quercuum, Cke.
Cke. Grev. **12**: 23. *d.* Sept. 1883.
?Diplodina Quercuum, Tracy & Earle.
Tracy & Earle, Bull. Torr. Bot. Club **26**: 494. *d.* 22 Sept. 1899.
Sacc. & Syd. Syll. **16**: 940. *d.* 1 Feb. 1902.

Ascochyta Rhei, Ell. & Ev.

NOTE. The name *Phyllosticta Rhei* has been twice used by Ellis and Everhart, first in Jour. Myc. **5**: 145. 1889 and again in Proc. Phil. Acad. **1891**: 77. March 1891. The former was made the basis of *Ascochyta Rhei,* Ell. & Ev. 1893. An attempt has been made to connect the name *Phyllosticta Halstediana* with one of the descriptions and this has resulted in confusion. In Ell. & Ev. Fung. Columb. *1254.* May 1898 both descriptions are referred to *Ascochyta Rhei.* A. B. S.

Ell. & Ev. Proc. Phil. Acad. **1893**: 160. *d.* 28 Feb. 1893.

Sacc. Syll. **11**: 525. *d.* July 1895.
Smyth, Tr. Kans. Acad. **15**: 71. March 1898.
*Ell. & Ev. Fung. Columb. *1254.* May 1898.
Orton, Rept. Vt. Exp. Sta. **12**: 172. Dec. 1899. Contr. Bot. Vt. 7: 172. Dec. 1899.
Sacc. & Syd. Syll. **16**: 935. 1 Feb. 1902.
Davis, J. J., Tr. Wis. Acad. **14**: 95. Sept. 1903.
Allescher in Rabh. Krypt.-Fl. **1**7: 879. 1903.
Clint. Rept. Conn. Exp. Sta. **27**: 355. May 1904.
Phyllosticta Rhei, Ell. & Ev.
Ell. & Ev. Jour. Myc. **5**: 145. *d.* Sept. 1889.
Ell. & Ev. Proc. Phil. Acad. **1891**: 77. *d.* March 1891.
Sacc. Syll. **10**: 134. *d.* 30 June 1892.
Sacc. Syll. **10**: 135. *d.* 30 June 1892.
*Seymour & Earle, E. F. *494.* 15 Oct. 1897.
Allescher, Rabh. Krypt.-Fl. **1**6: 144. 1898.
Allescher, Rabh. Krypt.-Fl. **1**6: 348. 1899.
Ell. & Ev. N. Am. Phyllostictas 70. Dec. 1900.
Phyllosticta Halstediana, Allescher.
Allescher, Rabh. Krypt.-Fl. **1**6: 144. 1898.

Ascochyta Rhynchosiæ, (Thm.) Sacc.
Sacc. Syll. **3**: 398. *d.* 15 Dec. 1884.
Depazea Rhynchosiæ, Thm.
*Thm. Myc. Univ. *596. d.* 1876.
Thm. Flora **60**: 207. *d.* May 1877.
Thm. Flora **61**: 182 (6). *d.* 21 April 1878.

Ascochyta Rubi, Lasch.
Farl. Appalachia **3**: 249. Jan. 1884.

Ascochyta salicifoliæ, Trel.
See ***Septoria salicifoliæ,*** (Trel.) Ell. & Ev.

Ascochyta Silenes, Ell. & Ev.
Ell. & Ev. Jour. Myc. **5**: 148. *d.* Sept. 1889.
Sacc. Syll. **10**: 301. *d.* 30 June 1892.
Davis, J. J., Tr. Wis. Acad. **9**: 166. 21 Aug. 1893.

Ascochyta Sisymbrii, Ell. & Kellerm.
Ell. & Kellerm. Jour. Myc. **5**: 142. *d.* Sept. 1889.
Sacc. Syll. **10**: 302. *d.* 30 June 1892.
Tassi, Bull. Lab. Bot. Siena **5**: 40. 1902.

Ascochyta Smilacis, Ell. & Martin.
See ***Stagonospora Smilacis,*** (Ell. & Martin) Sacc.

Ascochyta Solidaginum, (S.) Starb.

NOTE. We have given below the synonymy of this species founded on *Sphæria Solidaginum*, S. in accordance with the examination of Schweinitzian and other material made by Starbäck, 1894. But we should say that our own examination of *Sphæria Solidaginum*, S. and *Dothidea Solidaginis*, S. from Herb. Schweinitz does not agree in several respects with the observations of Starbäck.

The fungus instead of forming spots in the leaves is, in many cases at least, a parasite on the common *Coleosporium* of *Solidago* recently designated as *Stichospora Solidaginis*, (S.) Diet.

Amongst the synonyms enumerated by Starbäck is *Septoria Solidaginis*, Thm. An examination of the authentic specimen of Thuemen in Myc. Univ. *1399.* 1879 shows however a *Darluca* parasitic on *Coleosporium*. Whether it can be referred to *Darluca Filum*, (Biv.) Cast. is not beyond doubt but it certainly is closely related to that species and it must be admitted that Starbäck's figure suggests possibly a *Darluca*. The specimen of *Septoria*

Solidaginis, Cke. in Rav. Fung. Am. *784*. 1882, shows no fungus which can be recognized. Specimens in other exsiccati resemble that in Mycotheca Universalis. In many cases there accompanies the pycnidial form a sclerotium form whose relation to the pycnidial form needs to be further studied.

It seems to us therefore that the true character of *Sphæria Solidaginum*, S. is not yet clearly settled but we are inclined to believe that it is a *Darluca* accompanying the common *Coleosporium*. If that is not the case it is doubtful whether it will ever be possible to determine from Schweinitzian specimens what *Sphæria Solidaginum*, S. really was.

Starb. Bot. Notiser **1893**: 31. 15 Feb. 1893.
Starb. Bihang till K. Sv. Vet. Akad. Handl. **19**^{3}: no. 2: 84. *d. pl. 3, f. 62 a–d.* 1894.
Sphæria Solidaginum, S.
S. Syn. Car. 47 (21) no. 225. *d.* 1822.
S. Syn. Am. Bor. 225 no. 1802. 1834.
Curtis, M. A., Bot. N. Car. 150. 1867.
B. Grev. **4**: 154 (192). June 1876.
Sacc. Syll. **2**: 436. *d.* 13 June 1883.
Starb. Bot. Notiser **1893**: 31. 15 Feb. 1893.
Dothidea Solidaginis, Fr. p. p.
Fr. El. **2**: 125. 1828.
Dothidea Solidaginis, S. Am. Bor.
S. Syn. Am. Bor. 232 no. 1908. 1834.
Watt, Can. Nat. & Geol. II. **2**: 391. Oct. 1865.
*Rav. Fung. Am. 97. 1878.
Cke. Grev. **6**: 145. June 1878.
Cke. Grev. **13**: 62. March 1885.
Ell. & Ev. Proc. Phil. Acad. **1894**: 345. *d.* 30 Nov. 1894.
Kellerm. & Werner, Geol. Ohio **7**^{2}: 360. Jan. 1895.
Sphæria Solidaginis, S.
Fr. El. **2**: 125. 1828.
S. Syn. Am. Bor. 315. 1834.
*Rav. Fung. Car. **2**: *60.* 1853.
Pk. Rept. N. Y. Mus. **24**: 99. 1872.
C. & E. Grev. **6**: 16. Sept. 1877.
Ell. & Ev. Pyren. 399. May 1892.
Septoria Solidaginis, Thm.
Thm. Flora **61**: 180 (4). *d.* 21 April 1878.
Sacc. Syll. **3**: 546. *d.* 15 Dec. 1884.
Martin, Jour. Myc. **3**: 75. *d.* July 1887.
Roum. Rev. Myc. **11**: 133. 1 July 1889.
Septoria Solidaginum, Thm.
*Thm. Myc. Univ. *1399.* 1879.
? Septoria Solidaginis, Cke.
*Rav. Fung. Am. *784.* 1882.
Cke. Grev. **12**: 25. *d.* Sept. 1883.
Halsted, Bull. Iowa Agr. Coll. **1888**: 109. April 1888.
Phyllachora Solidaginum, Sacc.
Sacc. Syll. **2**: 614. 13 June 1883.
Ell. in Cat. Pl. N. J. 539. 1889.

Ascochyta Spartinæ, Trel.
Trel. Tr. Wis. Acad. **6**: 121 (17). *d.* Nov. 1884 and Jour. Myc. **1**: 14. *d.* Jan. 1885.
Berl. & Vogl. in Sacc. Syll. Add. **1–4**: 332. *d.* 31 Dec. 1886.
Sacc. Syll. **10**: 307. *d.* 30 June 1892.

Ascochyta teretiuscula, Sacc. & Roum.
Ell. & Ev. Jour. Myc. **4**: 49. *d.* June 1888.

Ascochyta Thaspii, Ell. & Ev.
Ell. & Ev. Jour. Myc. **5**: 148. *d.* Sept. 1889.
*Ell. & Ev. N. A. F. *2381.* 1890.
Sacc. Syll. **10**: 305. *d.* 30 June 1892.

Ascochyta Treleasei, Berl. & Vogl.
Berl. & Vogl. in Sacc. Syll. Add. **1–4**: 332. *d.* 31 Dec. 1886.
Sacc. Syll. **10**: 305. *d.* 30 June 1892.
Davis, J. J., Tr. Wis. Acad. **9**: 159. 21 Aug. 1893.
Ascochyta, sp.
Trel. Tr. Wis. Acad. **6**: 121 (17). *d.* Nov. 1884.

Ascochyta veratrina, Ell. & Ev.
Ell. & Ev. Proc. Phil. Acad. **1894**: 364. *d.* 30 Nov. 1894.
Sacc. Syll. **11**: 525. *d.* July 1895.
Allescher in Rabh. Krypt.-Fl. **1⁶**: 667. 1900.

Ascochyta Viciæ, Lib.
*Barthol., Ell. & Ev. Fung. Columb. *1506.* Dec. 1901.

Ascochyta Viciæ, Trail.
See ***Ascochyta vicicola,*** Sacc.

Ascochyta vicicola, Sacc.
Ascochyta Viciæ, Trail.
*Ell. & Ev. N. A. F. *3552.* 24 Jan. 1898.

Ascochyta Violæ, Sacc. & Speg.
Trel. Tr. Wis. Acad. **6**: 121 (17). Nov. 1884.
Halsted, Rept. N. J. Exp. Sta. **1891**: 300. 1892.
Halsted, Rept. N. J. Exp. Sta. **1897**: 384. 1898.

Ascochyta zeicola, Ell. & Ev.
Ell. & Ev. Proc. Phil. Acad. **1895**: 433. *d.* Nov. 1895.
Sacc. Hedw. **35**: Rep. 7: xliii. 25 Feb. 1896.
Sacc. & Syd. Syll. **14**: 947. *d.* 20 Aug. 1899.

Ascochyta, sp. indet.
Trel. Tr. Wis. Acad. **6**: 121 (17). Nov. 1884.
Halsted, Gard. & Forest **5**: 353. 27 July 1892.
Ell. & Ev. Proc. Phil. Acad. **1893**: 455. 1893.
Clint. Rept. Conn. Exp. Sta. **27**: 310, 316, 322. May 1904.

Ascocorticium, Bref.
Earle, Bull. N. Y. Bot. Gard. **2**: 331. 25 April 1902.

Ascocorticium anomalum, (Ell. & Hark.) Schrt.
Schrt. in Engler & Prantl, Pflanzenfam. **1¹**: 161. *d. f. 137.* Oct. 1894.
Earle, Bull. N. Y. Bot. Gard. **2**: 331. 25 April 1902.
Ascomyces anomalus, Ell. & Hark.
Ell. & Hark. Bull. Torr. Club **8**: 26. March 1881.
*Ell. N. A. F. *561.* 1881.
Exoascus anomalus, Sacc.
Sacc. Syll. **8**: 820. *d.* 20 Dec. 1889.

Ascomyces aureus, Magn.
See ***Taphrina aurea,*** (P.) Fr.

Ascomyces aureus, Auct. Amer. p. p.
See ***Taphrina Johansonii,*** Sadebeck.

Ascomyces cærulescens, Mont. & Desm.
See ***Taphrina cærulescens,*** (Mont. & Desm.) Tul.

Ascomyces deformans, B.
See ***Exoascus deformans,*** (B.) Fckl.

Ascomyces deformans, Hark. non B.
See ***Exoascus Aesculi,*** (Ell. & Ev.) Patterson.

Ascomyces deformans, var. **Aesculi,** Ell. & Ev.
See ***Exoascus Aesculi,*** (Ell. & Ev.) Patterson.

Ascomyces deformans, var. **purpurascens,** Ell. & Ev.
See ***Taphrina purpurascens,*** (Ell. & Ev.) Robinson.

Ascomyces extensus, Pk.
See ***Taphrina extensa,*** (Pk.) Sacc.

Ascomyces fulgens, Cke. & Hark.

NOTE. This is said by Harkness, 1885, to be an aphidian gall and not a fungus.

Cke. & Hark. Grev. **9**: 8. *d.* Sept. 1880.
Cke. & Hark. Bull. Cal. Acad. **1**: 18. Feb. 1884.
Hark. Bull. Cal. Acad. **1**: 265 (10). 19 Nov. 1885.
Exoascus fulgens, Sacc.
Sacc. Syll. **8**: 820. *d.* 20 Dec. 1889.
Patterson, Bull. Univ. Iowa **3**[3]: 119. 14 May 1895.

Ascomyces letifer, Pk.
See ***Taphrina letifer,*** (Pk.) Sacc.

Ascomyces Pruni, Hark.
See ***Exoascus communis,*** Sadebeck.

Ascomyces Quercus, Cke.
See ***Taphrina cærulescens,*** (Mont. & Desm.) Tul.

Ascomyces rubrobrunneus, Pk.
See ***Taphrina rubrobrunnea,*** (Pk.) Sacc.

Ascomyces Tosquinetii, Auct. Amer.
See ***Taphrina Alni-incanæ,*** (Kuehn) Magn.

Ascomycetella, Pk.

NOTE. The genus *Ascomycetella,* Pk. Bull. Torr. Bot. Club **8**: 50. May 1881 is, as far as the type species is concerned, the same as *Cookella,* Sacc. Mich. **1**: 407. 1878. The genus *Ascomycetella* is however retained by most mycologists and the author of the genus as given by Saccardo is Ellis. This is not strictly the case. The genus *Ascomycetella* in its restricted sense is based on *A. Floridana,* Ell. but this species was considered by Ellis to be congeneric with *Ascomycetella,* Pk. The distinction between *Cookella* and *Ascomycetella* was really first given by Saccardo in Syll. **8**: 843, 846. 20 Dec. 1889 who separates them on the ground that in *Cookella* the spores are colored and in *Ascomycetella* they are subhyaline, a distinction upon which too much weight should not be placed. With regard to the limits of the genus see notes by Starbäck, Bih. K. Sv. Vet. Akad. Handl. **25**[3]: no. 1: 40, 41. 1899, Hennings, Engler's Bot. Jahrb. **28**: 276. 22 May 1900 and Hedw. **40**: 354. 30 Dec. 1901.

Ascomycetella, Sacc.
Ascosorus, Henn. & Ruhland.
Henn. Engler's Bot. Jahrb. **28**: 276. 22 May 1900.

Ascomycetella aurantiaca, Ell. & Martin.
See ***Leptophyma aurantiacum,*** (Ell. & Martin) Sacc.

Ascomycetella filicina, Ell. & Ev.
Ell. & Ev. Jour. Inst. Jamaica **1**: 247. *d.* April 1893.

Ascomycetella Floridana, Ell. & Martin.
Ell. & Martin, Am. Nat. **18**: 1148. *d.* Nov. 1884.
*Ell. & Ev. N. A. F. *2069.* 1888.
Sacc. Syll. **8**: 847. *d.* 20 Dec. 1889.
Starb. Bih. K. Sv. Vet. Akad. Handl. **25**[3]: no. 1: 41. 1899.
Henn. Engler's Bot. Jahrb. **28**: 276. 22 May 1900.
Henn. Hedw. **40**: 354. *f.* 2^{a-c}. 30 Dec. 1901.

*Rehm, Ascomyceten *1499*. 1903.
Ascosorus Floridanus, Henn. & Ruhland.
Henn. Engler's Bot. Jahrb. **28**: 276. *d.* 22 May 1900.

Ascomycetella quercina, Pk.
See ***Cookella quercina,*** (Pk.) Sacc.

Ascomycetella sulphurea, Wint.
Wint. Hedw. **24**: 23. *d.* 1885. Mexico.
Sacc. Syll. **8**: 846. *d.* 20 Dec. 1889.
Lindau in Engler & Prantl, Pflanzenfam. 1^1: 243. Dec. 1894.
Starb. Bih. K. Sv. Vet. Akad. Handl. 25^3: no. 1: 41. *d.* 1899.*

Ascomycetella, sp. indet. Conidia.
*Seymour & Earle, E. F. *182, 186, 190.* 1 Sept. 1892.

Ascophanus Aurora, (Cr.) Boud.
Pound, Clements and others, Bot. Surv. Nebr. 4: 42. 20 Jan. 1896.

Ascophanus carneus, (P.) Boud.
Sacc. Syll. **8**: 534. *d.* 20 Dec. 1889.
Lindau in Engler & Prantl, Pflanzenfam. 1^1: 190. *d.* Dec. 1894.
Millsp. & Nutt. Publ. Field Columb. Mus. Bot. **1**: 152. Jan. 1896.
Arth. Proc. Ind. Acad. **1896**: 216 (3). 1897.
Seaver, Proc. Iowa Acad. **12**: 113. July 1905.
Ascobolus carneus, P.
Phil. Grev. **5**: 117. March 1877.
Cke. Grev. **6**: 142. June 1878.
Hark. & Moore, Cat. Pac. Fung. 38. Feb. 1880.
*Ell. N. A. F. *853.* 1882.
Calkins, Jour. Myc. **2**: 105. Sept. 1886.
*Ell. & Ev. N. A. F. *2620.* Feb. 1891.

Ascobolus carneus, Rav. Fung. Am.
See ***Ascobolus testaceus,*** (Moug.) Phil.

Ascophanus carneus, var. **difformis,** Pound & Clements.
See ***Ascophanus difformis,*** (Nyl.) Boud.

Ascophanus Cesatii, (Carest.) Sacc.
Rostr. Meddelelser om Groenl. **18**: 59 (17). 1894.

Ascophanus cinerellus, (Karst.) Speg.
Rostr. Meddelelser om Groenl. **18**: 59 (17). 1894.

Ascophanus cinereus, (Cr.) Boud.
Seaver, Bull. Univ. Iowa 5^1: 276 (49). *d. pl. 14, f. 1.* Nov. 1904.
Seaver, Proc. Iowa Acad. **12**: 113. July 1905.

Ascophanus difformis, (Nyl.) Boud.
Ascophanus carneus, var. ***difformis,*** Pound & Clements.
Pound & Clements, Bot. Surv. Nebr. 5: 22. 30 March 1901.

Ascophanus granuliformis, (Cr.) Boud.
?Millsp. & Nutt. Publ. Field Columb. Mus. Bot. **1**: 152. Jan. 1896.
Seaver, Proc. Iowa Acad. **12**: 113. July 1903.

Ascophanus humosoides, Pk.
Pk. Bull. N. Y. Mus. 1^2: 22. *d.* Jan. 1888.
Sacc. Syll. **8**: 533. *d.* 20 Dec. 1889.
Lindau in Engler & Prantl, Pflanzenfam. 1^1: 190. Dec. 1894.
Peziza humosoides, Pk.
Pk. Rept. N. Y. Mus. **32**: 46. *d.* 1886.

Ascophanus incanus, (Phil.) Sacc.
Sacc. Syll. **8**: 529. *d.* 20 Dec. 1889.
Ascobolus incanus, Phil.
Phil. Grev. **5**: 117. *d. pl. 80, f. 10.* March 1877.
Hark. & Moore, Cat. Pac. Fung. 38. Feb. 1880.

Ascophanus isabellinus, Clements.
Pound & Clements, Bot. Surv. Nebr. 5: 9. *d.* 30 March 1901.
Sacc. & Syd. Syll. **16**: 1149. 1 Feb. 1902.

Ascophanus lilacinus, Cke.
Cke. Bull. Buf. Soc. **3**: 23. Sept. 1875.
Cke. Grev. **21**: 74. *d.* March 1893.
Sacc. Syll. **11**: 421. *d.* July 1895.

Ascophanus microsporus, (B. & Br.) Phil.
Rostr. Meddelelser om Groenl. **3**: 610. *d.* 1891.
Seaver, Bull. Univ. Iowa **5**[4]: 275 (48). *d. pl. 13, f. 2.* Nov. 1904.
Seaver, Proc. Iowa Acad. **12**: 113. July 1905.

Ascophanus papillatus, Boud.
See ***Lasiobolus equinus,*** (Muell.) Karst.

Ascophanus testaceus, (Moug.) Phil.
Phil. British Discomycetes 310. *d.* 1887.
Seaver, Bull. Univ. Iowa **5**[4]: 239 (12). 276 (49). *d. pl. 13, f. 1.* Nov. 1904.
Seaver, Proc. Iowa Acad. **12**: 113. July 1905.
Ascobolus carneus, Rav. Fung. Am.
*Rav. Fung. Am. *176.* 1878.

Ascophanus tetraonalis, Pk.
Pk. Bull. N. Y. Mus. **1**[2]: 22. *d.* Jan. 1888.
Sacc. Syll. **8**: 533. *d.* 20 Dec. 1889.
Peziza tetraonalis, Pk.
Pk. Rept. N. Y. Mus. **32**: 46. *d.* 1886.

Ascophanus vicinus, Boud.
Sacc. Syll. **8**: 530. *d.* 20 Dec. 1889.
Ascobolus vicinus, Cke.
C. & E. Grev. **6**: 8. Sept. 1877.

Ascophora chartarum, B. & C., nom. nud.

NOTE. As far as we know this name occurs only in M. A Curtis, Bot. N. Car. as cited below. The specimen in Herb. Curtis is a small ***Rhizopus*** with spores 7 μ in diameter. The material is not sufficient to determine the exact species.

Curtis, M. A., Bot. N. Car. 153. 1867.

Ascophora disciflora, Tode.
See ***Aregma disciflora,*** Arth.

Ascophora elegans, Cda.
See ***Thamnidium elegans,*** Lk.

Ascophora fusca, B. & C.

NOTE. The specimen of this species in Herb. Curtis shows that it is ***Rhizopus nigricans,*** Ehrb.

Ascophora Mucedo, Tode.
See ***Rhizopus nigricans,*** Ehrb.

Ascophora nucuum, Cda.

NOTE. The American specimens of this species belong to ***Rhizopus nigricans,*** Ehrb. under which A. Fischer includes also the European plant of this name.

Ascophora perennis, P.

NOTE. We have not been able to examine a Schweinitzian specimen of this species.

S. Syn. Car. 125 (99) no. 1285. 1822.

Ascosorus, Henn. & Ruhland.
See ***Ascomycetella,*** Sacc.

Ascosorus Floridanus, Henn. & Ruhland.
See ***Ascomycetella Floridana,*** Ell.

Ascospora, Fr.

NOTE. The genus Ascospora has been understood in so many different senses by different authors that it is next to impossible to say to what genera some of the species probably belong.

The genus was originally founded by Fries on *Sphæria Aegopodii*, P. but this has since been shown to agree more nearly in structure with the species placed by Fries in the genus *Stigmatea*, Fr. Summa 421 than with the species placed under *Ascospora*, Fr. S. O. V. 112. 1825, Summa 425. It seems to us better to retain the genus *Stigmatea* as used by modern writers than to complicate the subject still further by reviving the genus *Ascospora*.

Ascospora aterrima, Lev.
See ***Placosphæria aterrima,*** (Lev.) Sacc.

Ascospora Geranii, O. Kuntze.
See ***Stigmatea Geranii,*** Fr.

Ascospora gregaria, O. Kuntze.
See ***Stigmatea gregaria,*** Cke.

Ascospora Podophylli, M. A. Curtis.
See ***Phyllosticta Podophylli,*** (M. A. Curtis) Wint.

Ascospora Polygoni, O. Kuntze.
See ***Stigmatea Polygoni,*** (Fr.) n. n.

Ascospora Ranunculi, O. Kuntze.
See ***Stigmatea Ranunculi,*** Fr.

Ascospora Robertiani, O. Kuntze.
See ***Stigmatea Robertiani,*** Fr.

Ascospora sclerotidea, O. Kuntze.
See ***Stigmatea sclerotidea,*** Cke.

Ascospora seminata, O. Kuntze.
See ***Stigmatea seminata,*** (B. & Rav.) Sacc.

Ascospora Sequoiæ, O. Kuntze.
See ***Stigmatea Sequoiæ,*** (Cke. & Hark.) Sacc.

Ascospora submaculans, O. Kuntze.
See ***Stigmatea submaculans,*** Mont.

Aspergillus.

NOTE. There are numerous references to species of *Aspergillus* scattered through medical and technical works which can not be included here where we have given those of interest to the systematic mycologist.

Aspergillus alutaceus, B. & C.
Curtis, M. A., Bot. N. Car. 128. 1867.
B. Grev. **3**: 108 (118) no. 655. *d.* March 1875.
Sacc. Syll. **4**: 69. *d.* 10 April 1886.
Wehmer, Mem. Soc. Phys. et Hist. Nat. Genève **33**[2]: no. 4: 124. 1901.

Aspergillus aurantiacus, B.
See ***Nematogonium aurantiacum,*** Desm.

Aspergillus aviarius, Pk.
See ***Aspergillus fumigatus,*** Fres.

Aspergillus candidus, Lk.

NOTE. The synonymy of *Aspergillus candidus*, Lk. is very much confused. For notes on this subject see Wehmer, Mem. Soc. Phys. et Hist. Nat. Genève **33**[2]: no. 4: 95, 98. 1901. It is of course impossible to say whether the references below belong to the *Aspergillus candidus*, Sacc. or not, still less whether they belong to the *Monilia candida*, P. on which *Aspergillus candidus*, Lk. is based.

S. Syn. Am. Bor. 282 no. 2673. 1834.
Mont. Pl. Cell. Cuba 305. *d.* 1841.
Andrews, Proc. Boston Soc. **5**: 323. April 1856.
B. & C. Jour. Linn. Soc. **10**: 362. 1869.
Hark. & Moore, Cat. Pac. Fung. 28. Feb. 1880.
Bundy, Geol. Wis. 1873–79, **1**: 400. 1883.
Sacc. Syll. **4**: 66. *d.* 10 April 1886.
Rostr. Meddelelser om Groenl. **3**: 577. 1888.
Webber, Rept. Nebr. Agr. **1889**: 191 (51). 1890.
Rostr. Meddelelser om Groenl. **3**: 628. 1891.
Lindau, Rabh. Krypt.-Fl. **1**[8]: 149. *d.* 15 July 1904.

Aspergillus cimmerius, B. & C.

NOTE. Examination of original specimens shows that this is not an *Aspergillus* but a *Periconia* undistinguishable from the *P. chlorocephala*, Fres. in Rabh. Fung. Eur. *1661*. 1873.

Frost, Proc. Boston Soc. **12**: 80. 1869.
B. Grev. **3**: 108 (118) no. 656. *d.* March 1875.
Sacc. Syll. **4**: 71. *d.* 10 April 1886.
Wehmer, Mem. Soc. Phys. et Hist. Nat. Genève **33**[2]: no. 4: 109. *d.* 1901.

Aspergillus clavatus, Desm.
Sacc. Mich. **2**: 577. Dec. 1882.
Sacc. Syll. **4**: 67. *d.* 10 April 1886.
Ell. in Cat. Pl. N. J. 558. 1889.
Webber, Rept. Nebr. Agr. **1889**: 192 (52). 1890.
Massee & Salmon, Ann. Bot. **16**: 82. *d. pl. 5, f. 104.* March 1902.
Lindau, Rabh. Krypt.-Fl. **1**[8]: 130. *d.* 15 July 1904.
Rostr. Meddelelser om Groenl. **30**: 121. 1904.
Aspergillus clavellus, Pk.
Pk. Rept. N. Y. Mus. **34**: 49. *d. pl. 2, f. 1–5.* Oct. 1883.
Sacc. Syll. **4**: 67. *d.* 10 April 1886.
Wehmer, Mem. Soc. Phys. et Hist. Nat. Genève **33**[2]: no. 4: 91. *d.* 1901.

Aspergillus clavellus, Pk.
See ***Aspergillus clavatus,*** Desm.

Aspergillus Cookei, Sacc.

NOTE. This species, based on *Aspergillus mucoroideus*, Cke. non Cda. is Australian and is credited erroneously to North America.

Wehmer, Mem. Soc. Phys. et Hist. Nat. Genève **33**[2]: no. 4: 109. *d.* 1901.

Aspergillus crocatus, B. & C.
See ***Chondromyces crocatus,*** B. & C.

Aspergillus cucurbitaceus, M. A. Curtis in Herb.
Choanephora Cucurbitarum, (B. & Rav.) Thax.

Aspergillus Curtisii, B.
See ***Rhinotrichum Curtisii,*** B.

Aspergillus dubius, Cda.
Hark. & Moore, Cat. Pac. Fung. 29. Feb. 1880.

Aspergillus erythrocephalus, B. & C.
B. & C. Jour. Linn. Soc. **10:** 362. *d.* 1869. West Indies.
Sacc. Syll. **4:** 68. *d.* 10 April 1886.
Wehmer, Mem. Soc. Phys. et Hist. Nat. Genève **33²:** 126. *d.* 1901.

Aspergillus fimetarius, Pk.
Pk. Rept. N. Y. Mus. **42:** 128 (32). *d.* Dec. 1889.
Sacc. Syll. **10:** 524. *d.* 30 June 1892.
Wehmer, Mem. Soc. Phys. et Hist. Nat. Genève **33²:** no. 4: 102. *d.* 1901.

Aspergillus flavus, Lk.
Pk. Rept. N. Y. Mus. **31:** 45. 1879.
Sacc. Syll. **4:** 69. *d.* 10 April 1886.
Webber, Rept. Nebr. Agr. **1889:** 192 (52). 1890.
*Ell. & Ev. N. A. F. *2870.* March 1893.
?Cockerell, Jour. Inst. Jamaica **1:** 262. April 1893.
Millsp. & Nutt. Publ. Field Columb. Mus. Bot. **1:** 88. Jan. 1896.
Ell. in Millsp. Publ. Field Columb. Mus. Bot. **1;** 285. Dec. 1896. [Publ. 15.]
*Ell. & Ev. Fung. Columb. *1080.* 22 Dec. 1896.
Clark, Bot. Gaz. **28:** 291, 307–314. 30 Nov. 1899. 399. 10 Jan. 1900.
Duggar, Bot. Gaz. **31:** 44. 21 Jan. 1901.
Smith, M. H., Bot. Gaz. **31:** 126. 23 Feb. 1901.
*Barthol, Ell. & Ev. Fung. Columb. *1507.* Dec. 1901.
Clark, Bot. Gaz. **33:** 31. 24 Jan. 1902.
O'Brien, Bull. Torr. Bot. Club **29:** 170. 24 March 1902.
Ricker, Univ. of Maine Studies 3: 20. 30 April 1902.
Lindau, Rabh. Krypt.-Fl. **1⁸:** 129. *d.* 15 July 1904.

Aspergillus fuliginosus, Pk.
Pk. Bull. Buf. Soc. **1:** 69. *d.* July 1873.
Pk. Rept. N. Y. Mus. **26:** 79. *d.* April 1874.
Frost in Cat. Pl. Amherst 86. 1875.
Sacc. Syll. **4:** 70. *d.* 10 April 1886.
Cobb, List Pl. Amherst 40. 1887.
Webber, Rept. Nebr. Agr. **1889:** 192 (52). 1890.
Ell. in Millsp. Publ. Field Columb. Mus. Bot. **1:** 285. Dec. 1896. [Publ. 15.]
*Shear, Ell. & Ev. Fung. Columb. *1492.* May 1901.
Wehmer, Mem. Soc. Phys. et Hist. Nat. Genève **33²:** no. 4: 109. *d.* 1901.

Aspergillus fumigatus, Fres.

NOTE. For notes on the ascosporic form of this species see Grijns, Centralbl. Bact. 2 Abt. **11:** 330–332. *f. 1–6.* 31 Dec. 1903.
We do not understand why the name *fumigatus,* Fres. (1863) is adopted by modern writers rather than *nigrescens,* Rob. a synonym dating from 1853.

Chester, Rept. Del. Exp. Sta. **6:** 129. *d. f. 3, 4.* 1894.
Boston, Phila. Med. Jour. **7:** 446. *f. 1.* 2 March 1901.
Grijns, Centralbl. Bact. 2 Abt. **11:** 330, 332. *f. 1–6.* 31 Dec. 1903.
Aspergillus nigrescens, Robin.
Leidy, Proc. Phil. Acad. 4, 12. 19 Jan. 1875.
Aspergillus aviarius, Pk.
Pk. Rept. N. Y. Mus. **44:** 120 (8), 137 (25). *d. pl. 4, f. 9–12.* Dec. 1891.
Sacc. Syll. **10:** 524. *d.* 30 June 1892.
Wehmer, Mem. Soc. Phys. et Hist. Nat. Genève **33²:** no. 4: 91. *d.* 1901.

Aspergillus glaucus, Lk.
See ***Eurotium herbariorum,*** (Wigg.) Lk.

Aspergillus glaucus, var. **oblongisporus,** Ell. & Ev.
Millsp. & Nutt. Publ. Field Columb. Mus. Bot. **1**: 88. *d.* Jan. 1896.

Aspergillus griseus, Lk.
*S. Syn. Am. Bor. 282 no. 2679. 1834.
Webber, Rept. Nebr. Agr. **1889**: 192 (52). 1890.
Lindau, Rabh. Krypt.-Fl. 1^8: 135. *d.* 15 July 1904.

Aspergillus herbariorum, E. Fischer.
See ***Eurotium herbariorum,*** (Wigg.) Lk.

Aspergillus laneus, S. Am. Bor.
See ***Rhinotrichum Curtisii,*** B.

Aspergillus maximus, Lk.
See ***Sporodinia Aspergillus,*** (Scop.) Schrt.

Aspergillus mollis, B.
Hark. & Moore, Cat. Pac. Fung. 29. Feb. 1880.

Aspergillus Mycobanche, Lk.

NOTE. This is referred by Streinz to *Aspergillus glaucus,* but it has apparently been ignored by modern writers. The Schweinitzian specimen examined showed no *Aspergillus* of any kind.

S. Syn. Am. Bor. 282 no. 2674. 1834.

Aspergillus niger, Van Tiegh.
See ***Sterigmatocystis nigra,*** Van Tiegh.

Aspergillus nigrescens, Robin.
See ***Aspergillus fumigatus,*** Fres.

Aspergillus nigricans, Cke.
See ***Sterigmatocystis nigra,*** Van Tiegh.

Aspergillus nigriceps, B. & C. nom. nud.
Cke. Grev. **17**: 21. Sept. 1888.

Aspergillus niveus.

NOTE. The material on which this determination was based is not in condition to warrant the record of this species as correct and it should be excluded from literature.

Farl. Bull. Bussey Inst. **2**: 251. Jan. 1878.

Aspergillus oosporus, (Lk.) Wallr.
Aspergillus ovalispermus, Lk.
S. Syn. Am. Bor. 282 no. 2675. 1834.
Thm. Fungi Pomicoli 41. *d.* 1879.

Aspergillus Oryzæ, (Ahlburg) Cohn.

NOTE. The ascosporic condition of this species is *Eurotium Oryzæ,* Ahlburg.

Golden, Proc. Ind. Acad. **1898**: 189 (3). *f. 1–12.* Dec. 1899.
Hiller, Proc. Ind. Acad. **1901**: 272. 1902.
Lindau, Rabh. Krypt.-Fl. 1^8: 128. *d.* 30 June 1904.

Aspergillus ovalispermus, Lk.
See ***Aspergillus oosporus,*** (Lk.) Wallr.

Aspergillus phæocephalus, Dur. & Mont.
See ***Sterigmatocystis phæocephala,*** (Dur. & Mont.) Sacc.

Aspergillus pulvinatus, B. & C. nom. nud.
Curtis, M. A., Bot. N. Car. 129. 1867.
*Ell. & Ev. N. A. F. *1648.* 1886.
Ell. in Cat. Pl. N. J. 558. 1889.

Aspergillus purpureofuscus, S.
S. Syn. Am. Bor. 282 no. 2680. *d.* 1834.
Sacc. Syll. **4**: 68. *d.* 10 April 1886.
Wehmer, Mem. Soc. Phys. et Hist. Nat. Genève **33**[2]: no. 4: 127. *d.* 1901.

Aspergillus repens, (Cda.) Sacc.

NOTE. It can not be told from the references given below whether the species intended is *Aspergillus glaucus*, var. *repens*, Cda. or *Eurotium repens*, DBy.

Sacc. Mich. **2**: 577. *d.* Dec. 1882.
*Ell. N. A. F. *1236.* 1884.
Sacc. Syll. **4**: 64. *d.* 10 April 1886.
Webber, Rept. Nebr. Agr. **1889**: 192 (52). 1890.
Jelliffe, Druggists Circular **41**: 95. *f. a–d.* April 1897.
Jelliffe, Bull. Torr. Bot. Club **24**: 481. 30 Oct. 1897.
Dresbach, Ohio Nat. **2**: 289. June 1902.

Aspergillus ? roseus, Lk.
S. Syn. Am. Bor. 282 no. 2677. 1834.
Andrews, Proc. Boston Soc. **5**: 323. April 1856.
Curtis, M. A., Bot. N. Car. 128. 1867.
Cke. Handbook 588. *d.* 1871.
B. Grev. **3**: 107 (117). March 1875.
Frost in Cat. Pl. Amherst 86. 1875.
Cobb, List Pl. Amherst 40. 1887.

Aspergillus subgriseus, Pk.
Pk. Bull. Torr. Bot. Club **22**: 210. *d.* 15 May 1895.
Sacc. Hedw. **35**: Rep. 7: xlvi. 25 Feb. 1896.
Sacc. & Syd. Syll. **14**: 1046. *d.* 20 Aug. 1899.
Wehmer, Mem. Soc. Phys. et Hist. Nat. Genève **33**[2]: no. 4: 149. *d.* 1901.

Aspergillus umbrinus, Patterson.
Patterson, Bull. Torr. Bot. Club **27**: 284. *d.* 26 May 1900.
Sacc. & Syd. Syll. **16**: 1028. *d.* 1 Feb. 1902.

Aspergillus virens, Lk.
S. Syn. Am. Bor. 282 no. 2681. *d.* 1834.
Johnson, Bull. Minn. Acad. **1**: 340. 1878.
Hark. & Moore, Cat. Pac. Fung. 29. Feb. 1880.
Bundy, Geol. Wis. 1873–79, **1**: 400. 1883.
Webber, Rept. Nebr. Agr. **1889**: 192 (52). 1890.

Aspergillus, sp. indet.
Norton, Tr. St. Louis Acad. **7**: 240. 9 Nov. 1896.

Asterella, Sacc.

NOTE. The genus *Asterella*, Sacc. does not seem to us to be really distinct from *Asterina*, Lev. and furthermore the fact that there is a prior genus of *Hepaticæ* of the same name would prevent the adoption of the name for a genus of *Fungi*.

See ***Asterina,*** Lev.

Asterella Bignoniæ, Sacc.
See ***Asterina Bignoniæ,*** Ell. & Ev.

Asterella capnoides, Sacc.
See ***Asterina capnoides,*** Ell.

Asterella carnea, Sacc.
See ***Asterina carnea,*** Ell. & Martin.

Asterella Chamænerii, Rostr.
See ***Asterina Chamænerii,*** (Rostr.) Ell. & Ev.

Asterella clavuligera, Sacc.
See ***Asterina clavuligera,*** Cke.

Asterella crustacea, Ell. & Ev.
See ***Asterina crustacea,*** (Ell. & Ev.) n. n.

Asterella cuticulosa, Tracy & Earle.
See ***Asterina cuticulosa,*** Cke.

Asterella discoidea, Sacc.
See ***Asterina discoidea,*** Ell. & Martin.

Asterella Erithalidis, Ell. & Ev.
See ***Asterina Erithalidis,*** (Ell. & Ev.) n. n.

Asterella Gaultheriæ, Sacc.
See ***Asterina Gaultheriæ,*** M. A. Curtis.

Asterella graminicola, Sacc.
See ***Asterina graminicola,*** Ell. & Ev.

Asterella intricata, Sacc.
See ***Asterina intricata,*** Ell. & Martin.

Asterella nuda, Sacc.
See ***Asterina nuda,*** Pk.

Asterella oleina, Sacc.
See ***Asterina oleina,*** Cke.

Asterella patelloides, Sacc.
See ***Asterina patelloides,*** Ell. & Martin.

Asterella paupercula, Sacc.
See ***Asterina paupercula,*** Ell. & Ev.

Asterella Pearsoni, Sacc.
See ***Asterina Pearsoni,*** Ell. & Ev.

Asterella Plantaginis, Sacc.
See ***Asterina Plantaginis,*** Ell.

Asterella Prosopidis, Ell. & Ev.
See ***Asterina Prosopidis,*** (Ell. & Ev.) n. n.

Asterella pustulata, Sacc.
See ***Asterina pustulata,*** Ell. & Martin.

Asterella reptans, Lindau.
See ***Asterina reptans,*** B. & C.

Asterella stomatophora, Sacc.
See ***Asterina stomatophora,*** Ell. & Martin.

Asterella subcyanea, Sacc.
See ***Asterina subcyanea,*** Ell. & Martin.

Asteridium anomalum, (Cke. & Hark.) Lindau.
Lindau in Engler & Prantl, Pflanzenfam. **1**[1]: 342. Jan. 1897.
Asterina anomala, Cke. & Hark.
Cke. & Hark. Grev. **9**: 87. *d.* March 1881.
Sacc. Syll. **1**: 49. *d.* 13 June 1882.
Cke. & Hark. Bull. Cal. Acad. **1**: 20. Feb. 1884.
Martin, Jour. Myc. **1**: 134. *d.* Nov. 1885.
Dimerosporium anomalum, Ell. & Ev.
Ell. & Ev. Pyren. 35. *d.* May 1892.

Asteridium bicolor, Ell. & Ev.
Ell. & Ev. Erythea **5**: 5. *d.* 31 Jan. 1897.
Lindau & Syd. Hedw. **37**: Beibl. 7: xxii. 9 April 1898.
Sacc. & Syd. Syll. **14**: 700. *d.* 20 Aug. 1899.

Asteridium Celastri, Sacc.
See ***Asterina Celastri,*** Ell. & Kellerm.

Asteridium dothideoides, Ell. & Ev.
Ell. & Ev. Bull. Torr. Bot. Club **22:** 436. *d.* 31 Oct. 1895.
Sacc. Hedw. **35:** Rep. 7: xxiv. 25 Feb. 1896.
Sacc. & Syd. Syll. **14:** 700. *d.* 20 Aug. 1899.

Asteridium Illicii, Tracy & Earle.
Tracy & Earle, Bull. Torr. Bot. Club **22:** 176. *d.* 18 April 1895.
Tracy & Earle, Bull. Miss. Exp. Sta. 34: 100. *d.* May 1895.
Sacc. Hedw. **35:** Rep. 7: xxiv. 25 Feb. 1896.
Sacc. & Lindau, Hedw. **36:** Rep. 7: xix. 30 April 1897.
Sacc. & Syd. Syll. **14:** 699. *d.* 20 Aug. 1899.

Asteridium lepidigenoides, (Ell. & Ev.) Sacc.
Sacc. Syll. **9:** 435. *d.* 15 Sept. 1891.
Lindau in Engler & Prantl, Pflanzenfam. 1^1: 342. Jan. 1897.
Asterina lepidigenoides, Ell. & Ev.
Ell. & Ev. Jour. Myc. **4:** 121. *d.* Dec. 1888.
Ell. & Ev. Pyren. 40. *d.* May 1892.

Asteridium lepidigenum, (Ell. & Martin) Sacc.
Sacc. Syll. **9:** 436. *d.* 15 Sept. 1891.
Asterina lepidigena, Ell. & Martin.
Ell. & Martin, Am. Nat. **18:** 1148. *d.* Nov. 1884.
Martin, Jour. Myc. **1:** 136. *d.* Nov. 1885.
*Ell. N. A. F. *1361.* 1885.
Berl. & Vogl. in Sacc. Syll. Add. **1–4:** 8. *d.* 31 Dec. 1886.
*Wint. Fung. Eur. *3440.* 1886.
Ell. & Ev. Pyren. 41. *d.* May 1892.

Asteridium moniliforme, Ell. & Ev.
Ell. & Ev. in Millsp. Publ. Field Columb. Mus. Bot. **2:** 16. March 1900. [Publ. 43.] West Indies.

Asteridium purpureum, (Ell. & Martin) Sacc.
Sacc. Syll. **9:** 436. *d.* 15 Sept. 1891.
Asterina purpurea, Ell. & Martin.
Ell. & Martin, Jour. Myc. **2:** 128. *d.* Nov. 1886.
Berl. & Vogl. in Sacc. Syll. Add. **1–4:** 394. *d.* 31 Dec. 1886.
Calkins, Jour. Myc. **3:** 7. Jan. 1887.
Ell. & Ev. Pyren. 43. *d.* May 1892.

Asteridium Xerophylli, (Ell.) Sacc.
Sacc. Syll. **9:** 437. *d.* 15 Sept. 1891.
Asterina Xerophylli, Ell.
Ell. Am. Nat. **17:** 319. *d.* March 1883.
Sacc. Syll. **2:** Add. p. iii. *d.* 13 June 1883.
Martin, Jour. Myc. **1:** 135. *d.* Nov. 1885.
Ell. & Ev. Pyren. 39. *d.* May 1892.

Asterina Agaves, Ell. & Ev.
Ell. & Ev. Bull. Torr. Bot. Club **27:** 571. *d.* 14 Nov. 1900. Mexico.
Sacc. & Syd. Syll. **16:** 649. *d.* 1 Feb. 1902.

Asterina aliena, Ell. & Gall.
Ell. & Ev. Pyren. 36. *d.* May 1892.

Asterina anomala, Cke. & Hark.
See ***Asteridium anomalum,*** (Cke. & Hark.) Lindau.

Asterina asterophora, Ell. & Martin, nom. nud.
Calkins, Jour. Myc. **2:** 42. April 1886.
Calkins, Jour. Myc. **2:** 127. Nov. 1886.

Asterina Bignoniæ, Ell. & Ev.
Ell. & Ev. Proc. Phil. Acad. **1890:** 220. *d.* 29 July 1890.
Ell. & Ev. Pyren. 43. *d.* May 1892.
Asterella Bignoniæ, Sacc.
Sacc. Syll. **9:** 393. *d.* 15 Sept. 1891.

Asterina bullata, B. & C.
B. & C. Proc. Am. Acad. **4:** 129. *d.* 14 Dec. 1858. Cent. Amer.
B. & C. Jour. Linn. Soc. **10:** 374. *d.* 1869. West Indies.
Sacc. Syll. **1:** 45. *d.* 51. *d.* 13 June 1882.
Ell. & Ev. Pyren. 44. *d.* May 1892.

Asterina capnoides, Ell.
Ell. Am. Nat. **17:** 318. *d.* March 1883.
Sacc. Syll. **2:** Add. p. ii. *d.* 13 June 1883.
Dimerosporium capnoides, Martin.
Martin, Jour. Myc. **1:** 145. *d.* Dec. 1885.
Ell. & Ev. Pyren. 34. *d.* May 1892.
Asterella capnoides, Sacc.
Sacc. Syll. **9:** 398. *d.* 15 Sept. 1891.

Asterina Celastri, Ell. & Kellerm.
Ell. & Kellerm. Jour. Myc. **1:** 3. *d.* Jan. 1885 and Hedw. **24:** 173. *d.* Aug. 1885.
Martin, Jour. Myc. **1:** 134. *d.* Nov. 1885.
Berl. & Vogl. in Sacc. Syll. Add. **1–4:** 12. *d.* 31 Dec. 1886
*Ell. & Ev. N. A. F. *1542.* 1886.
Ell. & Ev. Pyren. 39. *d.* May 1892.
Harvey, Bull. Torr. Bot. Club **23:** 51. 29 Feb. 1896.
Ricker, Univ. of Maine Studies 3: 30. 30 April 1902.
Asteridium Celastri, Sacc.
Sacc. Syll. **9:** 436. *d.* 15 Sept. 1891.

Asterina carnea, Ell. & Martin.
Ell. & Martin, Am. Nat. **17:** 1284. *d.* Dec. 1883.
*Ell. N. A. F. *1290.* 1884.
Martin, Jour. Myc. **1:** 134. *d.* Nov. 1885.
Berl. & Vogl. in Sacc. Syll. Add. **1–4:** 9. *d.* 31 Dec. 1886.
Ell. & Ev. Pyren. 38. *d.* May 1892.
*Pazschke, Fung. Eur. *4052.* April 1895.
Lindau & Syd. Hedw. **37:** Beibl. 7: xxi. 9 April 1898.
Asterella carnea, Sacc.
Sacc. Syll. **9:** 393. *d.* 15 Sept. 1891.
Tracy & Earle, Bull. Miss. Exp. Sta. 34: 98. May 1895.

Asterina Chamænerii, (Rostr.) Ell. & Ev.
Ell. & Ev. Pyren. 36. *d.* May 1892.
Asterella Chamænerii, Rostr.
Rostr. Meddelelser om Groenl. **3:** 545. *d.* 1888 and Bot. Centralbl. **36:** 5. *d.* 1888.
Sacc. Syll. **9:** 399. *d.* 15 Sept. 1891.
Rostr. Meddelelser om Groenl. **3:** 614. 1891.
Rostr. Meddelelser om Groenl. **18:** 61 (19). 1894.
Rostr. Meddelelser om Groenl. **30:** 116. 1904.

Asterina clavuligera, Cke.
Cke. Grev. **6:** 142. *d. pl. 101, f. 1.* June 1878 and **7:** 96. March 1879.
*Rav. Fung. Am. *76.* 1878.
*Rav. Fung. Am. *758.* 1882.
Sacc. Syll. **1:** 48. *d.* 13 June 1882.
Berl. & Vogl. in Sacc. Syll. Add. **1–4:** 11. *d.* 31 Dec. 1886.
Ell. & Ev. Pyren. 43. *d.* May 1892.

Dimerosporium clavuligerum, Martin.
Martin, Jour. Myc. **1**: 145. *d.* Dec. 1885.
Asterella clavuligera, Sacc.
Sacc. Syll. **9**: 397. *d.* 15 Sept. 1891.

Asterina coffeicola, Ell. & Ev.
Ell. & Ev. Jour. Inst. Jamaica **1**: 248. *d.* April 1893.

Asterina Colubrinæ, Ell. & Kelsey.
Ell. & Kelsey, Bull. Torr. Bot. Club **24**: 207. *d.* 24 April 1897.
Sacc. & Syd. Syll. **14**: 694. *d.* 20 Aug. 1899. West Indies.
Ell. & Kelsey in Millsp. Publ. Field Columb. Mus. **1**: 465. Nov. 1902. [Publ. 68.]

Asterina comata, B. & Rav.
B. Grev. **4**: 10 (148) no. 791. *d.* Sept. 1875.
Cke. Grev. **6**: 142. June 1878.
*Rav. Fung. Am. *73*. 1878.
Sacc. Syll. **1**: 49. *d.* 13 June 1882.
Martin, Jour. Myc. **1**: 137. *d.* Nov. 1885.
*Roum. Fung. Gall. *5036*. 1889.
Roum. Rèv. Myc. **11**: 196. 1 Oct. 1889.
*Ell. & Ev. N. A. F. *2339*. April 1890.
Ell. & Ev. Pyren. 39. *d.* May 1892.
Tracy & Earle, Bull. Miss. Exp. Sta. 38: 140. May 1896.
Underw. & Earle, Bull. Ala. Exp. Sta. 80: 181. *d.* 28 June 1897.
Earle in Mohr. Contr. U. S. Nat. Herb. **6**: 168. 31 July 1901.

Asterina conglobata, B. & C.
See ***Dimerosporium conglobatum***, (B. & C.) Ell. & Ev.

Asterina congregata, B. & C.
B. & C. Proc. Am. Acad. **4**: 129. *d.* 14 Dec. 1858. Cent. Amer.
Sacc. Syll. **1**: 48. *d.* 13 June 1882.
Ell. & Ev. Pyren. 44. *d.* May 1892.

Asterina connata, B. & C.
B. & C. Jour. Linn. Soc. **10**: 374. *d.* 1869. West Indies.
Sacc. Syll. **1**: 42. *d.* 13 June 1882.

Asterina coriacella, Speg.
Duss, Champ. Guad. & Martinique 83. 1903. West Indies.

Asterina crustacea, (Ell. & Ev.) n. n.
Asterella crustacea, Ell. & Ev.
Ell. & Ev. in Millsp. Publ. Field Columb. Mus. Bot. **2**: 15. *d.* *pl.* 51. March 1900. [Publ. 43.] West Indies.

Asterina cupressina, (Rehm) Cke.
C. & E. Grev. **6**: 17. *d.* Sept. 1877.
Rehm, Ascomyceten 96. 1881.
Rehm, Hedw. **21**: 57. April 1882.
Sacc. Syll. **1**: 42. *d.* 13 June 1882.
Martin, Jour. Myc. **1**: 138. *d.* Nov. 1885.
Ell. & Ev. Pyren. 37. *d.* May 1892.
Venturia cupressina, Rehm in Exs.
*Rehm, Ascomyceten *394*. 1877.
*Ell. N. A. F. *160*. 1878.
*Ell. N. A. F. *500*. 1880.
*Thm. Myc. Univ. *1543*. 1880.
Ell. in Cat. Pl. N. J. 516. 1889.
*Roum. Fung. Gall. *5142*. 1890.
Roum. Rev. Myc. **12**: 20. 1 Jan. 1890.

Asterina cuticulosa, Cke.
Cke. Grev. **7**: 49. *d.* Dec. 1878.
*Rav. Fung. Am. *328.* 1879.
Sacc. Syll. **1**: 44. *d.* 13 June 1882.
Martin, Jour. Myc. **1**: 137. *d.* Nov. 1885.
Ell. & Ev. Pyren. 40. *d.* May 1892.
Asterella cuticulosa, Tracy & Earle.
Tracy & Earle, Bull. Miss. Exp. Sta. 34: 99. *d.* May 1895.

Asterina decolorans, B. & C.
B. Grev. **4**: 9 (147) no. 785. *d.* Sept. 1875.
Sacc. Syll. **1**: 46. *d.* 13 June 1882.
Martin, Jour. Myc. 1: 137. *d.* Nov. 1885.
Ell. & Ev. Pyren. 40. *d.* May 1892.

Asterina delitescens, Ell. & Martin.
Ell. & Martin, Am. Nat. **17**: 1284. *d.* Dec. 1883.
*Ell. N. A. F. *1291.* 1884.
Martin, Jour. Myc. **1**: 134. *d.* Nov. 1885.
Berl. & Vogl. in Sacc. Syll. Add. **1–4**: 10. *d.* 31 Dec. 1886.
Sacc. Syll. **9**: 383. *d.* 15 Sept. 1891.
Ell. & Ev. Pyren. 36. *d. pl. 6.* May 1892.
Tracy & Earle, Bull. Miss. Exp. Sta. 34: 98. May 1895.
Earle, Bot. Gaz. **21**: 226, 227. 25 April 1896.

Asterina diplodioides, B. & C.
B. Grev. **4**: 9 (147) no. 787. *d.* Sept. 1875.
Sacc. Syll. **1**: 41. *d.* 13 June 1882.
Martin, Jour. Myc. **1**: 137. *d.* Nov. 1885.
Ell. & Ev. Pyren. 44. *d.* May 1892.
Underw. & Earle, Bull. Ala. Exp. Sta. 80: 181. *d.* 28 June 1897.
Earle in Mohr, Contr. U. S. Nat. Herb. **6**: 168. 31 July 1901.

Asterina discoidea, Ell. & Martin.

NOTE. It is possible that *Asterina discoidea,* Ell. & Martin may be the same as *A. oleina,* Cke. but the specimen of the latter in Rav. Fung. Am. *757* is too immature to give satisfactory information.

Ell. & Martin, Am. Nat. **18**: 1148. *d.* Nov. 1884.
Ell. & Martin, Jour. Myc. **1**: 101. *d.* Aug. 1885 and Hedw. **25**: 44. *d.* Feb. 1886.
Martin, Jour. Myc. **1**: 135. *d.* Nov. 1885.
Calkins, Jour. Myc. **2**: 42. April 1886.
Berl. & Vogl. in Sacc. Syll. Add. **1–4**: 8. *d.* 31 Dec. 1886.
*Ell. & Ev. N. A. F. *1784.* 1887.
Ell. & Ev. Pyren. 37. *d.* May 1892.
Asterella discoidea, Sacc.
Sacc. Syll. **9**: 395. *d.* 15 Sept. 1891.

Asterina dubiosa, Bomm. & Rous.
Bomm. & Rous. in Durand & Pittier, Bull. Soc. Bot. Belg. **35**[1]: 157. *d.* 1896. Cent. Amer
Sacc. & Syd. Syll. **14**: 696. *d.* 20 Aug. 1899.

Asterina Erithalidis, (Ell. & Ev.) n. n.
Asterella Erithalidis, Ell. & Ev.
Ell. & Ev. in Millsp. Publ. Field Columb. Mus. Bot. **2**: 15. *d. pl.* 50. March 1900. [Publ. 43.] West Indies.

Asterina erysiphoides, B. & C. nom. nud.
See ***Sphærella nyssæcola,*** Cke.

Asterina erysiphoides, Ell. & Martin.
See ***Asterina patelloides,*** Ell. & Martin.

Asterina Eugeniæ, Mont.
Mont. Syll. Crypt. 255. *d.* 1856. West Indies.
Sacc. Syll. **1**: 49. *d.* 13 June 1882.
Dothidea Eugeniæ, Mont.
Mont. Ann. Sci. Nat. II. **8**: 359. *d.* 1837.

Asterina examinans, B. & C.
B. & C. Jour. Linn. Soc. **10**: 374. *d.* 1869. West Indies.
Sacc. Syll. **1**: 45. *d.* 13 June 1882.

Asterina exasperans, B. & C.
See ***Phacidium exasperans,*** S.

Asterina furcata, Pat.
Pat. Jour. de Bot. **2**: 148 (7). *d. f. 4.* 1 May 1888. West Indies.

Asterina Gaultheriæ, M. A. Curtis.
Pk. Rept. N. Y. Mus. **22**: 101. 1869.
Martin, Jour. Myc. **1**: 134. *d.* Nov. 1885.
*Ell. N. A. F. *1358.* 1885.
Berl. & Vogl. in Sacc. Syll. Add. **1–4**: 7. *d.* 31 Dec. 1886.
Ell. in Cat. Pl. N. J. 510. 1889.
Ell. & Ev. Pyren. 42. *d.* May 1892.
*Seymour & Earle, E. F. *139.* 1 Sept. 1892.
Davis, J. J., Tr. Wis. Acad. **9**: 165. 21 Aug. 1893.
Kellerm. & Werner, Geol. Ohio **7**^{2}: 352. Jan. 1895.
Sacc. Syll. **11**: 256. *d.* July 1895.
Harvey, Bull. Torr. Bot. Club **23**: 51. 29 Feb. 1896.
Davis, J. J., Tr. Wis. Acad. **11**: 168. Aug. 1897.
Orton, Rept. Vt. Exp. Sta. **12**: 167. Dec. 1899 and Contr. Bot. Vt. 7: 167. Dec. 1899.
Ricker, Univ. of Maine Studies 3: 30. 30 April 1902.
Asterella Gaultheriæ, Sacc.
Sacc. Syll. **9**: 394. *d.* 15 Sept. 1891.

Asterina globifera, Ell. & Ev.
Ell. & Ev. Bull. Torr. Bot. Club **22**: 435. *d.* 31 Oct. 1895. Hawaii.
Sacc. Hedw. **35**: Rep. 7: xxiv. 25 Feb. 1896.
Sacc. & Syd. Syll. **14**: 696. *d.* 20 Aug. 1899.

Asterina graminicola, Ell. & Ev.
Ell. & Ev. Proc. Phil. Acad. **1893**: 128. *d.* 28 Feb. 1893.
Asterella graminicola, Sacc.
Sacc. Syll. **11**: 257. *d.* July 1895.

Asterina granulosa, (Klotzsch) Hook. & Arnott.
Tracy & Earle, Bull. Miss. Exp. Sta. 34: 98. *d.* May 1895.
Tracy & Earle, Bull. Miss. Exp. Sta. 38: 140. May 1896.

Asterina Ilicis, Ell.

NOTE. It seems to us from specimens examined that the structure of this species corresponds to that of the genus *Microphyma* in which it is placed by Spegazzini.

See ***Microphyma Ilicis,*** (Ell.) Speg.

Asterina inquinans, Ell. & Ev.
Ell. & Ev. Jour. Myc. **3**: 41. *d.* April 1887.
Calkins, Jour. Myc. **3**: 46. April 1887.
Langlois, Cat. Pl. La. 27. 1887.
*Ell. & Ev. N. A. F. *1785.* 1887.
Sacc. Syll. **9**: 388. *d.* 15 Sept. 1891.
Ell. & Ev. Pyren. 41. *d.* May 1892.
Tracy & Earle, Bull. Miss. Exp. Sta. 38: 140. May 1896.
Earle, Bull. Torr. Bot. Club **27**: 120. *d.* 24 March 1900.

Hume, Rept. Fla. Exp. Sta. **1900**: 40. 1900.
Patterson, Bull. U. S. Agr. Pl. Industry 8: 18. 3 Feb. 1902.

Asterina intricata, Ell. & Martin.
Ell. & Martin, Am. Nat. **18**: 69. *d.* Jan. 1884.
Martin, Jour. Myc. **1**: 136. *d.* Nov. 1885.
Berl. & Vogl. in Sacc. Syll. Add. **1–4**: 8. *d.* 31 Dec. 1886.
Ell. & Ev. Pyren. 38. *d.* May 1892.
Asterella intricata, Sacc.
Sacc. Syll. **9**: 395. *d.* 15 Sept. 1891.
Tracy & Earle, Bull. Miss. Exp. Sta. 34: 99. *d.* May 1895.

Asterina Lauri-Borboniæ, (S.) Cke.

NOTE. The *Dothidea Lauri-Borboniæ,* S. has been placed in *Asterina* with doubt by Cooke in Grev. **13**: 67. March 1885 and also in *Asteroma,* Cke. Grev. **13**: 41. Dec. 1884. Saccardo places it in *Phyllachora.*

All the specimens of *Dothidea Lauri-Borboniæ* in Herb. S. which have been examined by different writers have been imperfect and it is impossible to say what the species is and as there is no more reason for assigning it to *Asterina* than to *Asteroma* we give here all the references known to us. The species must be classed permanently with *species ignotæ.*

Cke. Grev. **13**: 67. March 1885.
Dothidea Lauri-Borboniæ, S.
S. Syn. Am. Bor. 232 no. 1899. *d.* 1834.
Cke. Grev. **13**: 41. Dec. 1884.
Ell. & Ev. Pyren. 605. May 1892.
Phyllachora Lauri-Borboniæ, Sacc.
Sacc. Syll. **2**: 610. *d.* 13 June 1883.
Asteroma Lauri-Borboniæ, Cke.
Cke. Grev. **13**: 41. Dec. 1884.

Asterina Leemingii, Ell. & Ev.

NOTE. The conidial stage of this species is probably *Glenospora melioloides,* M. A. Curtis, of which no description has been published. Compare also *Dimerosporium Galactis,* Ell. & Ev.

Ell. & Ev. Proc. Phil. Acad. **1893**: 128. *d.* 28 Feb. 1893.
Gaillard, Bull. Soc. Myc. **9**: 97. *pl.* 7, *f.* 3. 31 March 1893.
Small & Vail, Mem. Torr. Bot. Club **4**: 200. *d. pl.* 82. April 1894.
*Ell. & Ev. N. A. F. *3108.* Nov. 1894.
*Ell. & Ev. Fung. Columb. *511.* 1894.
Sacc. Syll. **11**: 256. *d.* July 1895.
Millsp. & Nutt. Publ. Field Columb. Mus. Bot. **1**: 132. Jan. 1896.
Glenospora melioloides, M. A. Curtis, nom. nud.
Curtis, M. A., Bot. N. Car. 127. 1867.
Cke. Bull. Buf. Soc. **3**: 196. July 1877.

Asterina lepidigena, Ell. & Martin.
See ***Asteridium lepidigenum,*** Sacc.

Asterina lepidigenoides, Ell. & Ev.
See ***Asteridium lepidigenoides,*** (Ell. & Ev.) Sacc.

Asterina Lepiniana, Mont.
See ***Asterina pelliculosa,*** B.

Asterina megalospora, B. & C.
B. & C. Jour. Linn. Soc. **10**: 373. *d.* 1869. West Indies.
Sacc. Syll. **1**: 41. *d.* 13 June 1882.

Asterina melioloides, B. & C.
See ***Dimerosporium melioloides,*** (B. & C.) Martin.

Asterina Mexicana, Ell. & Ev.
Ell. & Ev. Bull. Torr. Bot. Club **27**: 51. *d.* 17 Feb. 1900. Mexico.
Sacc. & Syd. Syll. **16**: 648. *d.* 1 Feb. 1902.

Asterina minor, Ell. & Ev.
Ell. & Ev. Jour. Myc. **2**: 42. *d.* April 1886.
Berl. & Vogl. in Sacc. Syll. Add. **1–4**: 11. *d.* 31 Dec. 1886.
Sacc. Syll. **9**: 389. *d.* 15 Sept. 1891.
Ell. & Ev. Pyren. 41. *d.* May 1892.

?Asterina nigerrima, Ell.

NOTE. This species is placed by Lindau in the genus *Asterula*.

Ell. Bull. Torr. Bot. Club **8**: 91. *d.* Aug. 1881.
Sacc. Syll. **1**: 48. *d.* 13 June 1882.
Martin, Jour. Myc. **1**: 137. *d.* Nov. 1885.
Ell. in Cat. Pl. N. J. 509. 1889.
Ell. & Ev. Pyren. 43. May 1892.
Asterula nigerrima, Lindau.
Lindau in Engler & Prantl, Pflanzenfam. **1**[1]: 339. Jan. 1897.

Asterina nuda, Pk.
Martin, Jour. Myc. **1**: 134. *d.* Nov. 1885.
Pk. Rept. N. Y. Mus. **38**: 102. *d. pl. 2, f. 11–15.* 1885.
Berl. & Vogl. in Sacc. Syll. Add. **1–4**: 9. *d.* 31 Dec. 1886.
Ell. & Ev. Pyren. 36. *d.* May 1892.
Asterella nuda, Sacc.
Sacc. Syll. **9**: 397. *d.* 15 Sept. 1891.

Asterina oleina, Cke.

NOTE. See note under *Asterina discoidea,* Ell. & Martin.

Cke. Grev. **11**: 38. *d.* Sept. 1882.
*Rav. Fung. Am. 757. 1882.
Sacc. Syll. **2**: Add. p. ii. *d.* 13 June 1885.
Ell. & Martin, Jour. Myc. **1**: 101. *d.* Aug. 1885.
Martin, Jour. Myc. **1**: 137. *d.* Nov. 1885.
Calkins, Jour. Myc. **2**: 126. Nov. 1886.
Ell. & Ev. Pyren. 43. *d.* May 1892.
Asterella oleina, Sacc.
Sacc. Syll. **9**: 396. *d.* 15 Sept. 1891.

Asterina orbicularis, B. & C.
See ***Dimerosporium orbiculare,*** (B. & C.) Martin.

Asterina ostiolata, B. & C.
B. & C. Proc. Am. Acad. **4**: 129. *d.* 14 Dec. 1858. Cent. Amer.
Sacc. Syll. **1**: 51. *d.* 13 June 1882.
Ell. & Ev. Pyren. 44. *d.* May 1892.

Asterina patelloides, Ell. & Martin.
Martin, Jour. Myc. **1**: 136. *d.* Nov. 1885.
Berl. & Vogl. in Sacc. Syll. Add. **1–4**: 7. *d.* 31 Dec. 1886.
Ell. & Ev. Pyren. 38. *d.* May 1892.
Asterina erysiphoides, Ell. & Martin.
*Ell. N. A. F. *1359.* 1885.
Asterella patelloides, Sacc.
Sacc. Syll. **9**: 394. *d.* 15 Sept. 1891.

Asterina paupercula, Ell. & Ev.
Ell. & Ev. Jour. Myc. **4**: 121. *d.* Dec. 1888.
Ell. & Ev. Pyren. 37. *d.* May 1892.
Asterella paupercula, Sacc.
Sacc. Syll. **9**: 396. *d.* 15 Sept. 1891.

Asterina Pearsoni, Ell. & Ev.
Ell. & Ev. Jour. Myc. **1**: 92. *d.* July 1885.
Martin, Jour. Myc. **1**: 135. *d.* Nov. 1885.
Berl. & Vogl. in Sacc. Syll. Add. **1–4**: 10. *d.* 31 Dec. 1886.
Ell. in Cat. Pl. N. J. 510. 1889.
Ell. & Ev. Pyren. 42. *d.* May 1892.
Asterella Pearsoni, Sacc.
Sacc. Syll. **9**: 395. *d.* 15 Sept. 1891.

Asterina pellieulosa, B.

NOTE. Under this name in Fungi Cubenses *Asterina Lepiniana,* Mont. is mentioned as a synonym. We have not been able to trace the latter name elsewhere and it is probably a manuscript name.

B. & C. Jour. Linn. Soc. **10**: 373. 1869. West Indies.
B. Jour. Linn. Soc. **14**: 352. 17 Oct. 1874. Bermuda.
B. Grev. **4**: 10 (148). Sept. 1875.
Cke. Grev. **6**: 142. June 1878.
*Rav. Fung. Am. 75. 1878.
Sacc. Syll. **1**: 46. *d.* 13 June 1882.
Martin, Jour. Myc. **1**: 138. *d.* Nov. 1885.
Cke. in Hemsley, Bot. Challenger **1**: 104. 1885.
Pat. Jour. de Bot. **3**: 342 (39). 16 Oct. 1889.
Ell. & Ev. Pyren. 37. *d.* May 1892.
Tracy & Earle, Bull. Miss. Exp. Sta. 34: 98. *d.* May 1895.
Earle, Bot. Gaz. **21**: 228. 25 April 1896.
Tracy & Earle, Bull. Miss. Exp. Sta. 38: 140, 143. May 1896.
Underw. & Earle, Bull. Ala. Exp. Sta. 80: 181. 28 June 1897.
Earle in Mohr, Contr. U. S. Nat. Herb. **6**: 168. 31 July 1901.
Patterson, Bull. U. S. Agr. Pl. Industry 8: 18. 3 Feb. 1902.
Duss, Champ. Guad. & Martinique, 83. 1903.
Dimerosporium orbiculare, Atk. non Martin.
Atk. Bull. Cornell Univ. **3**: 4. 25 June 1897.

Asterina picea, B. & C.
B. & C. Jour. Linn. Soc. **10**: 374. *d.* 1869. West Indies.
Sacc. Syll. **1**: 46. *d.* 13 June 1882.
Ell. & Ev. Pyren. 36. *d.* May 1892.

Asterina Pinastri, Sacc. & Ell.

NOTE. The attachments of the perithecia by hyphal discs such as characterize the *Microthyriaceæ* show that this species can not be a *Parodiella.*

Sacc. Mich. **2**: 567. *d.* Dec. 1882.
*Ell. N. A. F. *789.* 1882.
Sacc. Syll. **2**: Add. p. ii. *d.* 13 June 1883.
*Wint. Fung. Eur. *2942.* 1883.
Martin, Jour. Myc. **1**: 135. *d.* Nov. 1885.
Sacc. Syll. **9**: 387. *d.* 15 Sept. 1891.
Ell. & Ev. Pyren. 39. *d.* May 1892.
*Ell. & Ev. Fung. Columb. *615.* 24 April 1895.
Parodiella rigida, Ell. & Ev.
Ell. & Ev. Jour. Myc. **4**: 62. *d.* July 1888.
Sacc. Syll. **9**: 410. *d.* 15 Sept. 1891.
Lindau in Engler & Prantl, Pflanzenfam. 1^1: 336. Jan. 1897.

Asterina Pittieri, Bomm. & Rous.
Bomm. & Rous. in Durand & Pittier, Bull. Soc. Bot. Belg. 35^1: 156. *d.* 1896. Cent. Amer.
Sacc. & Syd. Syll. **14**: 695. *d.* 20 Aug. 1899.

Asterina Plantaginis, Ell.
Ell. Bull. Torr. Bot. Club **9**: 74. *d.* June 1882.
*Ell. N. A. F. *791.* 1882.
Sacc. Syll. **2**: Add. p. iii. *d.* 13 June 1883.
Hark. Bull. Cal. Acad. **1**: 165. 7 March 1885.
Martin, Jour. Myc. **1**: 138. *d.* Nov. 1885.
Ell. in Cat. Pl. N. J. 510. 1889.
Ell. & Ev. Pyren. 40. *d.* May 1892.
*Seymour & Earle, E. F. *348.* 1 May 1893.
Halsted, Rept. N. J. Exp. Sta. **1892**: 348. 1893.
*Ell. & Ev. Fung. Columb. *713.* 24 April 1895.
Davis, J. J., Tr. Wis. Acad. **11**: 170. Aug. 1897.
Jones, H. L., Oberlin College Lab. Bull. 9: 5. 15 June 1898.
Orton, Rept. Vt. Exp. Sta. **12**: 167. Dec. 1899 and Contr. Bot. Vt. 7: 167. Dec. 1899.
Asterella Plantaginis, Sacc.
Sacc. Syll. **9**: 398. *d.* 15 Sept. 1891.

Asterina platasca, B. & C.
B. & C. Jour. Linn. Soc. **10**: 373. *d.* 1869. West Indies.
Sacc. Syll. **1**: 40. *d.* 13 June 1882.

Asterina Prosopidis, (Ell. & Ev.) n. n.
Asterella Prosopidis, Ell. & Ev.
Ell. & Ev. Am. Nat. **31**: 340. *d.* April 1897. Mexico.
Lindau & Syd. Hedw. **37**: Beibl. 7: xxii. 9 April 1898.
Sacc. & Syd. Syll. **14**: 698. *d.* 20 Aug. 1899.

Asterina purpurea, Ell. & Martin.
See ***Asteridium purpureum,*** (Ell. & Martin) Sacc.

Asterina pustulata, Ell. & Martin.
Ell. & Martin, Am. Nat. **18**: 1148. *d.* Nov. 1884.
Martin, Jour. Myc. **1**: 136. *d.* Nov. 1885.
Berl. & Vogl. in Sacc. Syll. Add. **1–4**: 8. *d.* 31 Dec. 1886.
*Ell. & Ev. N. A. F. *1543.* 1886.
Ell. & Ev. Pyren. 41. *d.* May 1892.
Asterella pustulata, Sacc.
Sacc. Syll. **9**: 395. *d.* 15 Sept. 1891.

Asterina radians, Ell.
Ell. Jour. Myc. **7**: 276. *d.* 15 May 1893.
Sacc. Syll. **11**: 255. *d.* July 1895.

Asterina ramularis, Ell.
See ***Asterula ramularis,*** (Ell.) Sacc.

Asterina reptans, B. & C.

NOTE. This species is made the type of *Trichopeltis* by Spegazzini but that name so far as we know has not yet appeared in North American literature except as stated below. Whether *Asterina reptans,* Ule, Myc. Bras. *65* is the true *A. reptans,* B. & C. seems to us doubtful. We have examined Berkeley and Curtis specimens on which the species is founded and they do not seem to have the same structure as the specimen in Myc. Bras.

B. & C. Jour. Linn. Soc. **10**: 373. *d.* 1869. West Indies.
Sacc. Syll. **1**: 46. *d.* 13 June 1882.
Trichopeltis reptans, Speg.
Sacc. Syll. **9**: 1068. 15 Sept. 1891.
Lindau in Engler & Prantl, Pflanzenfam. **1**[1]: 342. Jan. 1897.
Asterella reptans, Lindau.
Lindau in Engler & Prantl, Pflanzenfam. **1**[1]: 340. Jan. 1897.
Microthyrium reptans, Pat. in Duss.
Duss, Champ. Guad. & Martinique 83. 1903.

Asterina rubicola, Ell. & Ev.
Ell. & Ev. Proc. Phil. Acad. **1890**: 219. *d.* 29 July 1890.
*Ell. & Ev. N. A. F. *2340.* 1890.
Sacc. Syll. **9**: 384. *d.* 15 Sept. 1891.
Ell. & Ev. Pyren. 35. *d.* May 1892.
Davis, J. J., Tr. Wis. Acad. **9**: 165. 21 Aug. 1893.
Orton, Rept. Vt. Exp. Sta. **12**: 167. Dec. 1899 and Contr. Bot. Vt. 7: 167. Dec. 1899.
*Vestergren, Micr. Sel. *815.* March 1904.

Asterina sabalicola, Earle.
Earle, Bull. Torr. Bot. Club **27**: 120. *d.* 24 March 1900.
Sacc. & Syd. Syll. **16**: 648. *d.* 1 Feb. 1902.

Asterina Sidæ, Earle.
Earle, Bull. N. Y. Bot. Gard. **3**: 310. *d.* 30 June 1904. West Indies.

Asterina solanicola, B. & C.
B. & C. Jour. Linn. Soc. **10**: 374. *d.* 1869. West Indies.
Sacc. Syll. **1**: 48. *d.* 13 June 1882.
Wint. Hedw. **25**: 94 (3). June 1886.
Rehm, Hedw. Beibl. **34**: (161). *d.* 19 Oct. 1895.

Asterina sphærelloides, Ell. & Ev.
Ell. & Ev. Bull. Torr. Bot. Club **24**: 126. *d.* 30 March 1897. Hawaii.
Lindau & Syd. Hedw. **37**: Beibl. 7: xxii. 9 April 1898.

Asterina Sphærotheca, Karst. & Roum.
Bomm. & Rous. in Durand & Pittier, Bull. Soc. Bot. Belg. **35**[1]: 157. 1896. Cent. Amer.

Asterina sphenispora, Ell. & Ev.
Ell. & Ev. Jour. Inst. Jamaica **1**: 248. *d.* 262. April 1893.

Asterina spurca, B. & C.

NOTE. The specific name is spelled *spurca* in Grev. **4**: 10 where the species is first described but in the two previous citations of Ravenel and Curtis it is spelled *spuria.*

*Rav. Fung. Car. **4**: *69.* 1855.
Curtis, M. A., Bot. N. Car. 152. 1867.
B. Grev. **4**: 10 (148) no. 789. *d.* Sept. 1875.
Sacc. Syll. **1**: 50. *d.* 13 June 1882.
Martin, Jour. Myc. **1**: 138. *d.* Nov. 1885.
Ell. & Ev. Pyren. 44. *d.* May 1892.
Underw. & Earle, Bull. Ala. Exp. Sta. 80: 181. *d.* 28 June 1897.
Earle in Mohr, Contr. U. S. Nat. Herb. **6**: 168. 31 July 1901.

Asterina spuria, B. & C.
See ***Asterina spurca,*** B. & C.

Asterina stomatophora, Ell. & Martin.
Ell. & Martin, Jour. Myc. **1**: 98. *d.* Aug. 1885 and Hedw. **25**: 41. *d.* Feb. 1886.
Martin, Jour. Myc. **1**: 136. *d.* Nov. 1885.
Calkins, Jour. Myc. **2**: 127. Nov. 1886.
Berl. & Vogl. in Sacc. Syll. Add. **1–4**: 9. *d.* 31 Dec. 1886.
Ell. & Ev. Pyren. 41. *d.* May 1892.
Asterella stomatophora, Sacc.
Sacc. Syll. **9**: 394. *d.* 15 Sept. 1891.

Asterina subcyanea, Ell. & Martin.
Ell. & Martin, Am. Nat. **18**: 1148. *d.* Nov. 1884.
Martin, Jour. Myc. **1**: 136. *d.* Nov. 1885.
*Ell. N. A. F. *1360.* 1885.
Berl. & Vogl. in Sacc. Syll. Add. **1–4**: 7. *d.* 31 Dec. 1886.

Ell. & Ev. Pyren. 42. *d.* May 1892.
Asterella subcyanea, Sacc.
Sacc. Syll. **9**: 395. *d.* 15 Sept. 1891.
Lindau in Engler & Prantl, Pflanzenfam. **1**[1]: 340. Jan. 1897.

Asterina tenella, Cke.
Cke. Grev. **13**: 67. *d.* March 1885.
Martin, Jour. Myc. **1**: 135. *d.* Nov. 1885.
Berl. & Vogl. in Sacc. Syll. Add. **1–4**: 10. *d.* 31 Dec. 1886.
Sacc. Syll. **9**: 383. *d.* 15 Sept. 1891.
Ell. & Ev. Pyren. 39. *d.* May 1892.
Lindau in Engler & Prantl, Pflanzenfam. **1**[1]: 341. Jan. 1897.

Asterina triloba, Earle.
Earle, Bull. N. Y. Bot. Gard. **3**: 310. *d.* 30 June 1904. West Indies.

Asterina Wrightii, B. & C.
B. Grev. **4**: 10 (148) no. 790. *d.* Sept. 1875.
Cke. Ann. N. Y. Acad. **1**: 184, 187. May 1878.
Sacc. Syll. **1**: 49. *d.* 13 June 1882.
Martin, Jour. Myc. **1**: 138. *d.* Nov. 1885.
Ell. & Ev. Pyren. 44. *d.* May 1892.

Asterina Xerophylli, Ell.
See ***Asteridium Xerophylli,*** (Ell.) Sacc.

Asterina Yucatanensis, Ell. & Ev.
Ell. & Ev. in Millsp. Publ. Field Columb. Mus. Bot. **1**: 285. *d. pl. 9, f. 1–5.* Dec. 1896. [Publ. 15.] Cent. Amer.
Sacc. & Syd. Syll. **14**: 695. *d.* 20 Aug. 1899.

Asterina, sp. indet.
Trel. Tr. Wis. Acad. **6**: 119. Nov. 1884.
Small & Vail, Mem. Torr. Bot. Club **4**: 201. April 1894.

Asterinula, Ell. & Ev.
See ***Leptothyrella,*** Sacc.

Asterinula Dearnessii, Ell. & Ev.
See ***Leptothyrella Dearnessii,*** (Ell. & Ev.) Sacc.

Asterinula Langloisii, Ell. & Ev.
See ***Leptothyrella Langloisii,*** (Ell. & Ev.) Sacc.

Asteroconium, Syd.
Syd. Ann. Myc. **1**: 36. *d.* 30 Jan. 1903 and Jour. Myc. **10**: 244. *d.* 14 Oct. 1904.

Asteroconium Saccardoi, Syd.
Syd. Ann. Myc. **1**: 36. *d.* 30 Jan. 1903. Mexico.

Asterodon, Pat.
Pat. Bull. Soc. Myc. Fr. **10**: 129. *d.* 1894.
Pat. Essai Tax. 121. *d.* 1900.
Hydnochæte, Pk.
Pk. Rept. N. Y. Mus. **50**: 113. *d.* 28 March 1898.
Hydnochætella, Sacc.
Sacc. & Syd. Syll. **14**: 11. 20 Aug. 1899.

Asterodon ferruginosum, Pat.
Pat. Essai Tax. 121. 1900.
Hydnochæte setigera, Pk.
Pk. Rept. N. Y. Mus. **50**: 113. *d.* 28 March 1898.
Sacc. & Syd. Syll. **14**: 211. *d.* 20 Aug. 1899.
Asterodon setiger, Pk.
Pk. Bull. N. Y. Mus. **6**: 221. July 1899. [Bull. 28.]

Asteroma Aceris, Rob.
Thm. Nat. Can. **10**: 10. Jan. 1878.

Asteroma alpinum, Sacc.
Rostr. Meddelelser om Groenl. **3**: 570. 1888.
Rostr. Meddelelser om Groenl. **30**: 120. 1904.

Asteroma atramentarium, B.
B. Grev. **2**: 98 (79) no. 456. *d.* Jan. 1874.
Sacc. Syll. **3**: 202. *d.* 15 Dec. 1884.

Asteroma Bartsiæ, Rostr.
Rostr. Meddelelser om Groenl. **3**: 570. *d.* 1888 and Bot. Centralbl. **36**: 7. *d.* 1888.
Rostr. Meddelelser om Groenl. **3**: 624. 1891.

Asteroma Brassicæ, Chev.
Rostr. Meddelelser om Groenl. **3**: 570. 1888.

Asteroma Cerasi, Cke.
See ***Asteroma cerasicolum,*** Sacc.

Asteroma cerasicolum, Sacc.
Sacc. Syll. **3**: 202. *d.* 15 Dec. 1884.
Allescher, Rabh. Krypt.-Fl. **1**[6]: 457. 1899.
Asteroma Cerasi, Cke.
*Rav. Fung. Am. 521. 1881.
Cke. Grev. **12**: 24. *d.* Sept. 1883.
*Thm. Myc. Univ. 2197. 1883.

Asteroma crustaceum, M. A. Curtis.

NOTE. M. A. Curtis in Bot. N. Car. 118 gives this name to the *Dothidea crustacea* of Schweinitz which as far as Schweinitzian specimens examined indicate does not show the ascosporic condition but is in all probability, judging by the structure of the young stages, either a *Dothidea* or a *Phyllachora*.

See ***Dothidea crustacea,*** S.

Asteroma Dianthi, Cke. & Hark.
Cke. & Hark. Grev. **9**: 84. *d.* March 1881.
Hark. Bull. Cal. Acad. **1**: 14. 29 Feb. 1884.
Sacc. Syll. **3**: 204. *d.* 15 Dec. 1884.

Asteroma Diospyri, (S.) M. A. Curtis.

NOTE. We have brought together under this name all the references and synonyms of *Xyloma Diospyri,* S. The Schweinitzian specimens show only immature fungi and at the present day there is no one able to say what the species really is. It should be placed in *species ignotæ.*

Curtis, M. A., Bot. N. Car. 118. 1867.
Sacc. Syll. **3**: 207. *d.* 15 Dec. 1884.
Comes, Critt. Agr. **1**: 468. 1891.
Xyloma Diospyri, S.
S. Syn. Car. 53 (27) no. 272. *d.* 1822.
Dothidea Diospyri, Fr.
Fr. S. M. **2**: 561. *d.* 1823.
S. Syn. Am. Bor. 232 no. 1907. 1834.
Cke. Grev. **13**: 44. Dec. 1884.
Cke. Grev. **13**: 62. March 1885.

Asteroma elegans, M. A. Curtis.
See ***Phyllachora elegans,*** (S.) Sacc.

Asteroma Epilobii, Fr.
Schrt. Ber. Schl. Ges. **1887**: 283. 1887.
Dothidea Epilobii, Fr.
Pk. Rept. N. Y. Mus. **31**: 49. 1879.
Ell. & Ev. Pyren. 615. *d.* May 1892.

Asteroma Euphorbiæ, Fckl.
Webber, Rept. Nebr. Agr. **1889**: 217 (77). 1890.

Asteroma Fraseræ, Ell. & Ev.
Ell. & Ev. Bull. Torr. Bot. Club **25**: 509. *d.* 10 Sept. 1898.
Sacc. & Syd. Syll. **16**: 890. *d.* 1 Feb. 1902.

Asteroma geographicum, (DC.) Desm.
Curtis, M. A., Bot. N. Car. 118. 1867.
Sacc. Syll. **3**: 202. *d.* 15 Dec. 1884.
Tubeuf-Smith, Diseases of Plants 470. 1897.
Allescher, Rabh. Krypt.-Fl. **1**[6]: 472. *d.* 475. 1899.
Lindau in Engler & Prantl, Pflanzenfam. **1**[1**]: 357. Dec. 1899.
*Barthol., Ell. & Ev. Fung. Columb. *1508.* Dec. 1901.
Dothidea geographica, Fr.
S. Syn. Am. Bor. 232 no. 1904. 1834.
*Rav. Fung. Car. **1**: *67.* 1852.
B. Grev. **4**: 105 (175). March 1876.
*Rav. Fung. Am. *739.* 1882.

Asteroma graminis, Westd.?
*Ell. & Ev. N. A. F. *2160.* 1889.

Asteroma Himantia, Fr.
See ***Sphærella Himantia,*** (P.) Karst.

Asteroma Impatientis, (S.) M. A. Curtis.

NOTE. We have brought together here all the references pertaining to *Dothidea Impatientis,* S. Schweinitzian material shows only undeveloped specimens and the plant should be placed with *species ignotæ.*

Curtis, M. A., Bot. N. Car. 118. 1867.
Dothidea Impatientis, S.
S. Syn. Am. Bor. 234 no. 1926. *d.* 1834.
Cke. Grev. **13**: 42. Dec. 1884.
Phyllachora Impatientis, Sacc.
Sacc. Syll. **2**: 617. *d.* 13 June 1883.

Asteroma inelegans, (S.) M. A. Curtis.

NOTE. This species should be classed with *species ignotæ* like the last and for similar reasons.

Curtis, M. A., Bot. N. Car. 118. 1867.
Dothidea inelegans, S.
S. Syn. Am. Bor. 233 no. 1915. *d.* 1834.
Cke. Grev. **13**: 42. Dec. 1884.
Phyllachora inelegans, Sacc.
Sacc. Syll. **2**: 619. *d.* 13 June 1883.

Asteroma infuscans, Ell. & Ev.
Ell. & Ev. Proc. Phil. Acad. **1895**: 431. *d.* Nov. 1895.
Sacc. Hedw. **35**: Rep. 7: xlii. 25 Feb. 1896.
*Ell. & Ev. N. A. F. *3359.* Feb. 1896.
*Ell. & Ev. Fung. Columb. *959.* April 1896.
Sacc. & Syd. Syll. **14**: 902. *d.* 20 Aug. 1899.
Asteroma ivæcola, Ell. & Ev.
Ell. & Ev. Am. Nat. **31**: 428. *d.* May 1897.
Ell. & Ev. Bull. Torr. Bot. Club **24**: 462. 30 Oct. 1897.
*Ell. & Ev. Fung. Columb. *1141.* July 1897.
*Ell. & Ev. N. A. F. *3543.* 21 Jan. 1898.
Lindau & Syd. Hedw. **37**: Beibl. 7: xliii. 9 April 1898.

Asteroma Juncaginearum, Rabh.
Rostr. Meddelelser om Groenl. **3**: 570. 1888.

Asteroma Lauri-Borboniæ, Cke.
See ***Asterina Lauri-Borboniæ,*** (S.) Cke.

Asteroma lineola, M. A. Curtis.
See ***Phoma lineola,*** (S.) Cke.

Asteroma Liriodendri, Cke.
*Rav. Fung. Am. 522. 1881.
Cke. Grev. **12**: 25. *d.* Sept. 1883.
Sacc. Syll. **3**: 203. *d.* 15 Dec. 1884.
Patterson, Bull. U. S. Agr. Pl. Industry 8: 23. 3 Feb. 1902.

Asteroma Panici, M. A. Curtis.
See ***Phyllachora Panici,*** (S.) Sacc.

Asteroma Parkinsoniæ, Ell. & Ev.
Ell. & Ev. Proc. Phil. Acad. **1895**: 431. *d.* Nov. 1895.
Sacc. Hedw. **35**: Rep. 7: xli. 25 Feb. 1896.
Sacc. & Syd. Syll. **14**: 901. *d.* 20 Aug. 1899.

Asteroma pomigenum, M. A. Curtis.
See ***Dothidea pomigena,*** S.

Asteroma Pringlei, Pk.
Pk. Bot. Gaz. **7**: 55. *d.* May 1882.

Asteroma punctiforme, B.
B. Grev. **2**: 97 (78) no. 455. *d.* Jan. 1874.
Sacc. Syll. **3**: 203. *d.* 15 Dec. 1884.

Asteroma reticulatum, (DC.) Chev.
Frost in Cat. Pl. Amherst 81. 1875.
Cobb, List. Pl. Amherst 38. 1887.

Asteroma ribicolum, Ell. & Ev.
Kelsey, Jour. Myc. **5**: 81. June 1889.
Ell. & Ev. Jour. Myc. **5**: 148. *d.* Sept. 1889.
Comes, Critt Agr. **1**: 469. 1891.
Sacc. Syll. **10**: 219. *d.* 30 June 1892.

Asteroma Robergei, Desm.
Curtis, M. A., Bot. N. Car. 118. 1867.
B. Grev. **2**: 98 (79). Jan. 1874.
Sacc. Syll. **3**: 210. *d.* 15 Dec. 1884.
Rostr. Meddelelser om Groenl. **3**: 569. 1888.
Rostr. Meddelelser om Groenl. **3**: 624. 1891.

Asteroma Robergei, Desm., var. **Arundinariæ,** Sacc.
Sacc. Syll. **3**: 210. *d.* 15 Dec. 1884.

Asteroma Rosæ, Lib.
See ***Actinonema Rosæ,*** (Lib.) Fr.

Asteroma Salicis, Rob. & Desm.
Desm. Ann. Sci. Nat. II. **19**: 350. *d.* 1843.*
Rostr. Meddelelser om Groenl. **3**: 570. 1888.
Rostr. Meddelelser om Groenl. **3**: 624. 1891.

Asteroma Saxifragæ, Ell. & Ev.
Ell. & Ev. Proc. Phil. Acad. **1893**: 158. *d.* 28 Feb. 1893.
Sacc. Syll. **11**: 501. *d.* July 1895.

Asteroma Senecionis, Ell. & Ev.
Ell. & Ev. Bull. Torr. Bot. Club **24**: 287. *d.* 29 June 1897.
Lindau & Syd. Hedw. **37**: Beibl. 7: xliii. 9 April 1898.
Sacc. & Syd. Syll. **14**: 901. *d.* 20 Aug. 1899.

Asteroma tinctorium, Cke.
*Rav. Fung. Am. *523.* 1881.
Cke. Grev. **12**: 25. *d.* Sept. 1883.
Sacc. Syll. **3**: 203. *d.* 15 Dec. 1884.

Asteroma vagans, Desm.
*Barthol., Ell. & Ev. Fung. Columb. *2005.* 20 March 1905.

Asteroma venulosum, (Wallr.) Fckl.
Davis, J. J., Tr. Wis. Acad. **9**: 166. 21 Aug. 1893.

Asteroma vernicosum, (D C.) Fckl.

NOTE. The specimen of *Dothidea vernicosa,* Fr. of the Schweinitz herbarium shows only undeveloped fungi and therefore it is uncertain whether the Schweinitzian specimen is really the *Asteroma vernicosum* of (D C.) Fckl.

Curtis, M. A., Bot. N. Car. 118. 1867.
Dothidea vernicosa, Fr.
S. Syn. Am. Bor. 232 no. 1900. 1834.
Cke. Grev. **13**: 44. Dec. 1884.

Asteroma Xanthii, M. A. Curtis.

NOTE. This manuscript name appears only in M. A. Curtis, Bot. N. Car. 118 and there is no specimen of it in the Curtis herbarium. It is therefore impossible to say whether it could be the *Asteroma Xanthii,* D C. referred by Cooke in Grev. to ***Puccinia Xanthii,*** S.

Asterophora agaricicola, Cda.

NOTE. This is the conidial form of ***Nyctalis lycoperdoides,*** (Bull.) Schrt. *q. v.*

Asterophora agaricoides, Fr.

NOTE. This is the conidial form of ***Nyctalis lycoperdoides,*** (Bull.) Schrt. *q. v.*

Asterophora effusa, S.

NOTE. An examination of an authentic Schweinitzian specimen shows that this is not an *Asterophora* in the proper sense. It appears to be one of the conidial forms of *Polyporus* called *Ptycogaster* but the Schweinitzian material is not sufficient to enable one to say certainly what species it is.

S. Syn. Am. Bor. 263 no. 2384. *d.* 1834.

Asterophora nucuum, Rav.

NOTE. This is a misprint for *Ascophora nucuum,* Cda. *q. v.*

Asterophora Peziza, Cda.

NOTE. This species of which the earlier name is *Stephanoma strigosum,* Wallr. is the conidial form of a *Hypomyces* whose ascosporic condition has not yet been found, as far as we know, in North America. It is the species called by Tulasne, Carp. **3**: 52. 1865 *Hypomyces Peziza.* For the conidial stage alone the name should perhaps be *Asterophora strigosa,* (Wallr.) n. n.

Pk. Rept. N. Y. Mus. **35**: 142. 1885.
Ell. & Ev. Jour. Myc. **2**: 76. July 1886.
Synthetospora electa, Morg.
Morg. Bot. Gaz. **17**: 192. *d. f. 2.* 15 June 1892.
Kellerm. & Werner, Geol. Ohio **7**^{2}: 371. Jan. 1895.
Sacc. Syll. **11**: 608. *d.* July 1895.
Lindau in Engler & Prantl, Pflanzenfam. **1**^{1**}: 451. *f. 234 A.* Feb. 1900.

Sepedonium tuberculiferum, Ell. & Ev.
Ell. & Ev. Am. Nat. **31**: 430. *d.* May 1897.
Lindau & Syd. Hedw. **37**: Beibl. 7: liii. 9 April 1898.
Sacc. & Syd. Syll. **14**: 1056. *d.* 20 Aug. 1899.

Asterophora physaroides, Fr.

NOTE. This is the conidial form of ***Nyctalis lycoperdoides,*** (Bull.) Schrt. *q. v.*

Asterophora strigosa, (Wallr.) n. n.
See note under ***Asterophora Pezizæ,*** Cda.

Asterosporium betulinum, Pk.
Pk. Rept. N. Y. Mus. **33**: 26. *d. pl. 1, f. 4–5.* Oct. 1883.
Sacc. Syll. **3**: 782. *d.* 15 Dec. 1884.
Ell. in Cat. Pl. N. J. 592. 1889.

Asterosporium Hoffmanni, Kze.

NOTE. The Schweinitzian specimen of *Asterosporium vulgare* examined shows no definite structure. It is impossible to say to what genus it belongs.

Curtis, M. A., Bot. N. Car. 119. 1867.
Cke. Handbook 468. *d. f. 181.* 1871.
*Ell. N. A. F. *956.* 1883.
Sacc. Syll. **3**: 782. *d.* 15 Dec. 1884.
Lindau in Engler & Prantl, Pflanzenfam. **1**^{1**}: 409. *f. 214 C–E.* Jan. 1900.
Allescher, Rabh. Krypt.-Fl. **1**^{7}: 663. *d. f. a-d.* 1902.
? Stilbospora asterosperma, P.
S. Syn. Car. 75 (49) no. 507. 1822.
? Asterosporium vulgare, S. Am. Bor.
S. Syn. Am. Bor. 299 no. 2980. 1834.

Asterosporium vulgare, S. Am. Bor. 2980.
See ***Asterosporium Hoffmanni,*** Kze.

Asterostroma, Massee.
Massee, Jour. Linn. Soc. **25**: 154. *d.* 8 June 1889.
Sacc. Syll. **9**: 236. *d.* 15 Sept. 1891.
Morg. Jour. Cin. Soc. **18**: 38. *d.* Dec. 1895.

Asterostroma albidocarneum, Massee.

NOTE. This species is founded on the *Corticium albidocarneum* of Rav. Fung. Car. **4**; *14* which was supposed by Ravenel to be the same as *Thelephora albidocarnea,* S. This however is not the case as shown by Massee's examination and our own examination of authentic specimens of *Thelephora albidocarnea,* S. from Herb. S. which is not an *Asterostroma.* The true *Thelephora albidocarnea,* S. which is the *Corticium albidocarneum,* (S.) Massee is not to be confounded with the present species. The references to *Corticium albidocarneum* in American literature relate in some cases to *Corticium albidocarneum,* (S.) Massee, *q. v.* We have given here those which belong properly to *Asterostroma albidocarneum,* Massee. The citations of Morgan and Kellerman & Werner probably belong here but we have not seen specimens representing them.

Massee, Jour. Linn. Soc. **25**: 155. *d. pl. 46, f. 8–9.* 8 June 1889.
Sacc. Syll. **9**: 237. 15 Sept. 1891.
Corticium albidocarneum, Rav.
*Rav. Fung. Car. **4**: *14.* 1855.
Curtis, M. A., Bot. N. Car. 107. 1867.
B. Grev. **1**: 178 (36). June 1873.
Morg. Jour. Cin. Soc. **10**: 200. *d.* Jan. 1888.

Sacc. Cub. & Manc. Syll. **6**: 620. *d.* 1 Aug. 1888. p. p.
Kellerm. & Werner, Geol. Ohio **7**^{2}: 333. Jan. 1895.

Asterostroma bicolor, Ell. & Ev.
Ell. & Ev. Proc. Phil. Acad. **1893**: 441. *d.* 1893.
Sacc. Syll. **11**: 128. *d.* July 1895.
Pk. Rept. N. Y. Mus. **55**: 954. Nov. 1902. [Bull. **10**: no. 54.]

Asterostroma cervicolor, (B. & C.) Massee.
Massee, Jour. Linn. Soc. **25**: 155. *d.* 8 June 1889.
Sacc. Syll. **9**: 237. 15 Sept. 1891.
Millsp. & Nutt. Publ. Field Columb. Mus. Bot. **1**: 171. Jan. 1896.
Corticium cervicolor, B. & C.
B. Grev. **1**: 179 (37) no. 267. *d.* June 1873.
*Rav. Fung. Am. *228.* 1879.
Calkins, Jour. Myc. **2**: 106. Sept. 1886.
Sacc. Cub. & Manc. Syll. **6**: 621. *d.* 1 Aug. 1888.
Underw. & Earle, Bull. Ala. Exp. Sta. 80: 223. *d.* 28 June 1897.
Earle in Mohr, Contr. U. S. Nat. Herb. **6**: 197. 31 July 1901.

Asterostroma corticola, Massee.
Massee, Jour. Linn. Soc. **25**: 155. *d.* 8 June 1889.
Sacc. Syll. **9**: 236. *d.* 15 Sept. 1891.
Millsp. & Nutt. Publ. Field Columb. Mus. Bot. **1**: 171. Jan. 1896.
Henn. in Engler & Prantl, Pflanzenfam. **1**^{1**}: 122. 1898.

Asterostroma muscicola, (B. & C.) Massee.
Massee, Jour. Linn. Soc. **25**: 155. *d.* 8 June 1889.
Sacc. Syll. **9**: 237. 15 Sept. 1891.
Hymenochæte muscicola, B. & C.
B. & C. Jour. Linn. Soc. **10**: 334. *d.* 1869. West Indies.
Cke. Grev. **8**: 149. June 1880.
Sacc. Cub. & Manc. Syll. **6**: 602. *d.* 1 Aug. 1888.

Asterostroma pallidum, Morg.
Morg. Jour. Cin. Soc. **18**: 38. *d.* Dec. 1895.
Sacc. Hedw. **35**: Rep. 7: x. 25 Feb. 1896.
McClatchie, Proc. S. Cal. Acad. **1**: 378. 5 June 1897.
Sacc. & Syd. Syll. **14**: 223. *d.* 20 Aug. 1899.

Asterula nigerrima, Lindau.
See ***Asterina nigerrima,*** Ell.

Asterula ramularis, (Ell.) Sacc.
Sacc. Syll. **9**: 375. *d.* 15 Sept. 1891.
Asterina ramularis, Ell.
Ell. Bull. Torr. Bot. Club **9**: 20. *d.* Feb. 1882.
*Ell. N. A. F. *790.* 1882.
Sacc. Syll. **2**: Add. p. ii. *d.* 13 June 1883.
Martin, Jour. Myc. **1**: 138. *d.* Nov. 1885.
Ell. & Ev. Pyren. 40. *d.* May 1892.

Asterula Tracyi, Pk.
Pk. Rept. N. Y. Mus. **47**: 152 (26). *d.* Nov. 1894.
Tracy & Earle, Bull. Miss. Exp. Sta. 34: 98. *d.* May 1895.
Sacc. Syll. **11**: 254. *d.* July 1895.

Astræus, Morg.
Morg. Jour. Cin. Soc. **12**: 19. *d.* April 1889.
Fischer in Engler & Prantl, Pflanzenfam. **1**^{1**}: 341. *d.* Dec. 1899.
Hollos, Gast. Hung. 78. *d.* 160. 1904.

Astræus hygrometricus, Morg.
See ***Astræus stellatus,*** (Scop.) E. Fischer.

Astræus stellatus, (Scop.) E. Fischer.
Fischer, E., in Engler & Prantl, Pflanzenfam. **1**[1**]: 341. *d. f. 178.* Dec. 1899.
Earle in Greene, Pl. Baker. **2**: 5. 25 March 1901.
Hollos, Gast. Hung. 78. *d.* 160. *pl. 10, f. 26–29.* 1904.

Geaster hygrometricus, P.
S. Syn. Car. 59 (33) no. 329. 1822.
Spreng. in L. Syst. Veg. 16 ed. **4**[1]: 518. *d.* 1827.
Hitchcock, Cat. Pl. Amherst 60. 1829.
Hitchcock, Cat. Pl. Mass. 646. 1833. 2 ed. 647 (127). 1835.
Fr. S. M. **3**: 19. *d.* 1832.
Klotzsch, Linnæa **8**: 490. 1833.
S. Syn. Am. Bor. 256 no. 2250. 1834.
B. Ann. Nat. Hist. **3**: 399. 1839.
Bischoff, Lehrb. der Bot. **3**[2]: 1158. 1840.
*Rav. Fung. Car. **3**: *75.* 1855.
Sprague, Proc. Boston Soc. **5**: 328. 1856.
Curtis, M. A., Bot. N. Car. 110. 1867.
Pk. Rept. N. Y. Mus. **22**: 89. 1869.
Cke. Handbook 371. *d.* 1871.
Featherman, Bot. Surv. La. **1871**: 158. 1872.
B. Grev. **2**: 35 (48). Sept. 1873.
Pk. in Hayden's Rept. U. S. Geol. Surv. **6**: 792. 1873.
Frost in Cat. Pl. Amherst 78. 1875.
*Thm. Myc. Univ. *110.* 1875.
Cke. Grev. **5**: 150. June 1877.
Johnson, Bull. Minn. Acad. **1**: 285. 1877 and Rept. Minn. Surv. **5**: 82. 1877.
Farl. Bull. Bussey Inst. **2**: 226. Jan. 1878.
Cke. Ann. N. Y. Acad. **1**: 179. May 1878.
*Ell. N. A. F. *108.* 1878.
Hark. & Moore, Cat. Pac. Fung. 18. Feb. 1880.
Gerard, Bull. Torr. Bot. Club **8**: 34. March 1881.
*Rav. Fung. Am. *471.* 1882.
Bundy, Geol. Wis. 1873–79, **1**: 399. 1883.
Rav. S. Car. Resources 355. 1883.
Morg. Am. Nat. **18**: 969. *d. f. 12.* Oct. 1884.
Cragin, Bull. Wash. Lab. **1**: 40. Jan. 1885.
Morg. Jour. Myc. **1**: 8. *d.* Jan. 1885.
Calkins, Jour. Myc. **3**: 70. June 1887.
De Toni, Rev. Myc. **9**: 129 (21). *d. pl. 63, f. E.* July 1887.
Cobb, List Pl. Amherst 37. 1887.
De Toni in Sacc. Syll. **7**: 90. *d.* 15 March 1888.
Bennett, Cat. Pl. R. I. 84. 1888.
Trel. Tr. Wis. Acad. **7**: 108. *d. pl. 1, f. 1.* 1888.
Massee, Ann. Bot. **4**: 81, 83. *pl. 4, f. 70.* Nov. 1889.
Ell. in Cat. Pl. N. J. 498. 1889.
Britton & Hollick, Proc. Nat. Sci. Assoc. Staten Isl. **2**: Special 11. Aug. 1890.
Jelliffe, Brooklyn Daily Eagle Almanac **5**: 76. 1890.
Webber, Tr. St. Louis Acad. **6**: 18. 12 March 1892 and Contr. Bot. Dept. Univ. Nebr. 3: 18. 14 June 1892.
*Ell. & Ev. Fung. Columb. *645.* 24 April 1895.
Macbr. & Allin, Bull. Univ. Iowa **4**: 58. *d.* 22 Dec. 1896.
Harvey, Bull. Torr. Bot. Club **24**: 73. 28 Feb. 1897.
Atk. Bull. Cornell Univ. **3**: 22. 25 June 1897.
Jelliffe, Flora of Long Island 42. 1899.
Longyear, Rept. Mich. Agr. **1898**: 94. 1899.

McIlvaine & Macadam, Am. Fung. 580. *d. pl. 160.* 1900.
Sweetser, Bull. Pacific Univ. **14**: 12. May 1901.
Lloyd, Gen. Gast. *pl. 8, f. 40.* Jan. 1902.
Ricker, Univ. of Maine Studies 3: 72. 30 April 1902.
Lloyd, Geastræ 8. *d. f. 5–11.* 40. June 1902.
Conant, Bull. Boston Myc. Club 19: 5 Feb. 1903.
Cockerell, Jour. Myc. **10**: 50. 19 March 1904.
Longyear, Rept. Mich. Acad. **4**: 123. 1904.
Geaster fibrillosus, S.
S. Syn. Car. 59 (33) no. 330. *d.* 1822.
Spreng. in L. Syst. Veg. 16 ed. **4**[1]: 518. 1827.
Fr. S. M. **3**: 20. *d.* 1832.
S. Syn. Am. Bor. 256 no. 2251. 1834.
Curtis, M. A., Bot. N. Car. 110. 1867.
Morg. Am. Nat. **18**: 969. *d. f.* Oct. 1884.
Morg. Jour. Myc. **1**: 9. *d.* Jan. 1885.
De Toni, Rev. Myc. **9**: 130 (22). *d.* July 1887.
De Toni in Sacc. Syll. **7**: 90. *d.* 15 March 1888.
Morg. Jour. Cin. Soc. **12**: 19. *d.* April 1889.
Astræus hygrometricus, Morg.
Morg. Jour. Cin. Soc. **12**: 20. *pl. 2, f B, 8–11. d.* April 1889.
McClatchie in Reid's Hist. Pasadena 618. 1895.
McClatchie, Proc. S. Cal. Acad. **1**: 386. 5 June 1897.
Underw. & Earle, Bull. Ala. Exp. Sta. 80: 266. 28 June 1897.
Underw. Moulds 140. 1899.
Earle in Mohr, Contr. U. S. Nat. Herb. **6**: 234. 31 July 1901.

Astræus stellatus, (Scop.) E. Fischer, var. **giganteus,** (Morg.) n. n.
Geaster hygrometricus, P., var. ***giganteus,*** Morg.
Lloyd, Myc. Notes 68. *f. 30.* Sept. 1901.
Lloyd, Geastræ 10. *d. f. 12, 13.* June 1902.

Astrodochium, Ell. & Ev.
Ell. & Ev. Am. Nat. **31**: 430. *d.* May 1897.
Lindau & Syd. Hedw. **37**: Beibl. 7: lvi. *d.* 9 April 1898.
Sacc. & Syd. Syll. **14**: 1117. *d.* 20 Aug. 1899.
Lindau in Engler & Prantl, Pflanzenfam. **1**[1**]: 500. *d.* Feb. 1900.

Astrodochium Coloradense, Ell. & Ev.
Ell. & Ev. Am. Nat. **31**: 430. *d.* May 1897.
Lindau & Syd. Hedw. **37**: Beibl. 7: lvi. 9 April 1898.
Ell. & Ev. Bull. Torr. Bot. Club **25**: 514. 10 Sept. 1898.
Sacc. & Syd. Syll. **14**: 1118. *d.* 20 Aug. 1899.
Lindau in Engler & Prantl, Pflanzenfam. **1**[1**]: 500. Feb. 1900.

Astrosporina scabella, Schrt.
See ***Inocybe scabella,*** (A. & S.) Fr.

Astryeum, Raf.

NOTE. So far as we can see this is not different from *Actigea, q. v.*

Raf. Med. Repos. 2 hex. **5**: 355. *d.* 1808.
Desv. Jour. de Bot. **2**: 175. *d.* 1809.
Lloyd, Myc. Notes 129. Feb. 1903.

Athalia bombacina, P.
See ***Sporotrichum bombacinum,*** Lk.

Atractium coccigenum, B. & C. nom. nud.
Featherman, Bot. Surv. La. **1870**: 123. 1871.

Atractium flammeum, B. & Rav.

NOTE. This is the conidial stage of *Sphærostilbe flammea,* (B. & Rav.) Tul.

B. & Rav. in B. & Br. Am. Nat. Hist. II. **13**: 461 (15). *d.* June 1854. [Notices no. 757.]
Cke. Handbook 555. *d. f.* 227. 1871.
Featherman, Bot. Surv. La. **1871**: 159. 1872.
Pk. Rept. N. Y. Mus. **25**: 92. Sept. 1873.
B. Grev. **4**: 16 (154). Sept. 1875.
Cke. Bull. Buf. Soc. **3**: 191. Feb. 1877.
Sacc. Syll. **4**: 599. *d.* 10 April 1886.
Langlois, Cat. Pl. La. 27. 1887.
*Ell. & Ev. N. A. F. *3312.* Feb. 1896.
Lindau in Engler & Prantl, Pflanzenfam. **1**1**: 492. *f.* 255*B.* Feb. 1900.

Atractium flammeum, B. & Rav., var. **minor,** Rav.
*Rav. Fung. Car. **5**: *86.* 1860.

Atractium fusisporum, B. & C. nom. nud.

NOTE. This species has never been described but it was said by Cooke, 1877, to be probably a form of some *Sphærostilbe.*

Curtis, M. A., Bot. N. Car. 126. 1867.
Cke. Bull. Buf. Soc. **3**: 191. Feb. 1877.

Atractium pallidum, B. & C.

NOTE. This is thought by some to be a form of *Sphærostilbe flammea,* (B. & Rav.) Tul.

B. Grev. **4**: 47 (156). Dec. 1875.
Ell. & Ev. Jour. Myc. **3**: 3. *d.* Jan. 1887.

Atractobolus, O. Kuntze.
See ***Dasyscypha,*** Fr.

Atractobolus lutescens, S.

NOTE. This is not a fungus but the eggs of an insect.

S. Syn. Am. Bor. 254 no. 2225. *d.* 1834.
B. Grev. **2**: 34 (48). Sept. 1873.
De Toni in Sacc. Syll. **7**: 47. 15 March 1888.

Atractobolus ubiquitarius, Fr.

NOTE. Of the two species of the genus *Atractobolus* mentioned by Schweinitz, 1834, *A. lutescens* is not a fungus but insect eggs. *Atractobolus ubiquitarius* under which name Schweinitz quotes Fr. S. M. **2**: 305. 1823 is a small *Peziza* belonging to some genus closely allied to *Mollisia,* which we are unable to determine specifically whereas in Summa 439. 1849 Fries states that his *Atractobolus ubiquitarius* is insect eggs. See also Berkeley in Entomol. Monthly Mag. **10**: 183. Jan. 1874.

Mycologists do not seem to be able to recognize the original *Atractobolus ubiquitarius* of Tode of which Tode gives *Peziza annularia,* Batsch as a synonym. The plates of Tode and Batsch suggest quite as much the work of an insect as a fungus and the assumption of O. Kuntze that *Atractobolus* includes *Dasyscypha,* Fr. seems to us quite unwarranted.

S. Syn. Am. Bor. 254 no. 2224. 1834.
B. Grev. **2**: 34 (48). Sept. 1873.
De Toni in Sacc. Syll. **7**: 47. 15 March 1888.

Auerswaldia densa, Bomm. & Rous.
Bomm. & Rous. in Durand & Pittier Bull. Soc. Bot. Belg. **35**1: 162. *d.* 1896. Cent. Amer.
Sacc. & Syd. Syll. **14**: 675. *d.* 20 Aug. 1899.

Auerswaldia Pringlei, (Pk.) Sacc.
Sacc. Syll. **2**: 626. *d.* 13 June 1883.
Dothidea Pringlei, Pk.
Pk. Bot. Gaz. **7**: 37. *d.* May 1882.
Calkins, Jour. Myc. **3**: 82. July 1887.
Ell. & Ev. Pyren. 610. *d.* May 1892.
McClatchie, Proc. S. Cal. Acad. **1**: 362. 5 June 1897.
Phyllachora Pringlei, Cke.
Cke. Grev. **13**: 69. March 1885.

Aulographum aciculum, Hark.
See ***Lembosia acicola,*** (Hark.) Sacc.

Aulographum Arundinariæ, Cke.
Cke. Grev. **14**: 14. Sept. 1885.
Berl. & Vogl. in Sacc. Syll. Add. **1–4**: 264. *d.* 31 Dec. 1886.
Sacc. Syll. **9**: 1102. *d.* 15 Sept. 1891.
Ell. & Ev. Pyren. 678. *d.* May 1892.

Aulographum cæspitosum, Ell. & Ev.
See ***Lembosia hysterioides,*** Sacc. & Syd.

Aulographum ciliatum, B. & C.
B. & C. Jour. Linn. Soc. **10**: 373. *d.* 1869. West Indies.
Sacc. Syll. **2**: 731. *d.* 13 June 1883.

Aulographum confluens, Earle.
Earle, Bull. Torr. Bot. Club **25**: 365. *d.* 15 July 1898.
Earle in Mohr, Contr. U. S. Nat. Herb. **6**: 162. 31 July 1901.
Sacc. & Syd. Syll. **16**: 659. *d.* 1 Feb. 1902.

Aulographum culmigenum, Ell.
Ell. Bull. Torr. Bot. Club **8**: 65. *d.* June 1881.
Sacc. Syll. **2**: 729. *d.* 13 June 1883.
Ell. in Cat. Pl. N. J. 542. 1889.
*Ell. & Ev. N. A. F. *2379.* 1890.
Ell. & Ev. Pyren. 679. *d.* May 1892.
Lindau in Engler & Prantl, Pflanzenfam. 1^1: 272. May 1896.

Aulographum gracile, Ell. & Martin.
Ell. & Ev. Pyren. 678. *d.* May 1892.
Sacc. Syll. **11**: 386. *d.* July 1895.

Aulographum Lituræ, Cke.
See ***Lembosia Lituræ,*** (Cke.) Sacc.

Aulographum lucens, Hark.
See ***Lembosia lucens,*** (Hark.) Sacc.

Aulographum maculare, B. & Br.
B. & C. Jour. Linn. Soc. **10**: 373. 1869. West Indies.
Cke. Ann. N. Y. Acad. **1**: 184. May 1878.
Sacc. Syll. **2**: 730. *d.* 13 June 1883.

Aulographum Pinorum, Desm.
Ell. & Ev. Pyren. 677. *d.* May 1892.
Underw. & Earle, Bull. Ala. Exp. Sta. 80: 196. 28 June 1897.
Earle in Mohr, Contr. U. S. Nat. Herb. **6**: 162. 31 July 1901.

Aulographum quercinum, Ell. & Martin.
Ell. & Martin, Am. Nat. **17**: 1283. *d.* Dec. 1883.
*Ell. N. A. F. *1284.* 1884.
Calkins, Jour. Myc. **2**: 105. Sept. 1886.
Langlois, Cat. Pl. La. 27. 1887.
*Ell. & Ev. N. A. F. *2066.* March 1888.
*Pazschke, Fung. Eur. *3675.* 1890.
Ell. & Ev. Pyren. 678. *d.* May 1892.

Rehm, Ann. Myc. **2**: 354. 31 July 1904.
Sacc. Syll. **17**: 895. *d.* 25 May 1905.
Lembosia quercina, Tracy & Earle.
Tracy & Earle, Bull. Miss. Exp. Sta. 34: 105. *d.* May 1895.
Sacc. Hedw. **35**: Rep. 7: xxxv. 25 Feb. 1896.
Sacc. & Syd. Syll. **14**: 714. *d.* 20 Aug. 1899.

Aulographum reticulatum, Phil. & Hark.
Phil. & Hark. Bull. Cal. Acad. **1**: 25 (5). *d.* Feb. 1884.
*Wint. Fung. Eur. *3265.* 1885.
Berl. & Vogl. in Sacc. Syll. Add. **1–4**: 263. *d.* 31 Dec. 1886.
*Ell. & Ev. N. A. F. *2065.* 1888.
Sacc. Syll. **9**: 1101. *d.* 15 Sept. 1891.
Ell. & Ev. Pyren. 678. *d.* May 1892.

Aulographum subconfluens, Pk.
Pk. Rept. N. Y. Mus. **28**: 70. *d.* 1876.
Sacc. Syll. **2**: 729. *d.* 13 June 1883.
Ell. & Ev. Pyren. 679. *d.* May 1892.

Aulographum vagum, Desm.
Ell. in Cat. Pl. N. J. 542. 1889.
Ell. & Ev. Pyren. 677. *d.* May 1892.

Aureobasidium Vitis, Viala & Boyer.
Sturgis, Rept. Conn. Exp. Sta. **24**: 272. 1901.

Auricula.
See ***Auricularia.***

Auricula auriformis, O. Kuntze.
See ***Auricularia auriformis,*** (S.) Earle.

Auricula blepharistoma, O. Kuntze.
See ***Auricularia blepharistoma,*** (B. & C.) n. n.

Auricula coffeicolor, O. Kuntze.
See ***Auricularia coffeicolor,*** (B.) n. n.

Auricula delicata, O. Kuntze.
See ***Auricularia delicata,*** (Fr.) Henn.

Auricula fuscosuccinea, O. Kuntze.
See ***Auricularia fuscosuccinea,*** (Mont.) n. n.

Auricula hispidula, O. Kuntze.
See ***Auricularia hispidula,*** (B.) n. n.

Auricula Judæ, Batt.
See ***Auricularia Auricula-Judæ,*** (L.) Schrt.

Auricula minuta, O. Kuntze.
See ***Auricularia Wrightii,*** (B. & C.) n. n.

Auricula nigra, O. Kuntze.
See ***Auricularia nigrescens,*** (Swartz) n. n.

Auricula polytricha, O. Kuntze.
See ***Auricularia polytricha,*** (Mont.) Sacc.

Auricula protracta, O. Kuntze.
See ***Auricularia auriformis*** (S.) Earle.

Auricula scutelliformis, O. Kuntze.
See ***Exidia scutelliformis,*** (B. & C.) n. n.

Auricula tenuis, O. Kuntze.
See ***Auricularia tenuis,*** (Lev.) n. n.

Auricula tremellosa, O. Kuntze.
See ***Auricularia tremellosa,*** (Fr.) Pat.

specimens of *Peziza auriformis* do not appear to indicate a real specific difference.

In the citation given it is stated that the *Auricularia Lesuerii*, Bory manuscript is the same as *Exidia protracta*, Lév.

Earle in Mohr, Contr. U. S. Nat. Herb. **6**: 194. 31 July 1901.
Peziza auriformis, S.
S. Syn. Car. 116 (90) no. 1155. *d.* 1822.
Hitchcock, Cat. Pl. Amherst 62. 1829.
Hitchcock, Cat. Pl. Mass. 647. 1833. 2 ed. 648 (128). 1835.
Exidia auriformis, S.
Fr. S. M. **2**: 223. *d.* 1822.
S. Syn. Am. Bor. 185 no. 1092. 1834.
Fr. Epicr. 590. *d.* 1836–38.
B. & Mont. Ann. Sci. Nat. III. **11**: 242. 1849.
Klotzsch, Linnæa **25**: 365. 1852.
Curtis, M. A., Bot. N. Car. 109. 1867.
Heller, Muhlenbergia **1**: 19. 9 Aug. 1900.
Tremella auriformis, Spreng.
Spreng. in L. Syst. Veg. 16 ed. **4**[1]: 535. *d.* 1827.
Exidia protracta, Lév.
Lév. Am. Sci. Nat. III. **2**: 218. *d.* 1844.
B. & Mont. Am. Sci. Nat. III. **11**: 242 (74). *d.* 1849.
Hirneola auriformis, Fr.
Fr. Fung. Natal. 26. *d.* 1848.
Morg. Jour. Cin. Soc. **11**: 95. *d.* July 1888.
Sacc. Cub. & Manc. Syll. **6**: 765. *d.* 1 Aug. 1888.
Kellerm. & Werner, Geol. Ohio **7**[2]: 336. Jan. 1895.
Atk. Bull. Cornell Univ. **3**: 24. 25 June 1897.
Hirneola protracta, B.
Sacc. Cub. & Manc. Syll. **6**: 766. *d.* 1 Aug. 1888.
Auricula auriformis, O. Kuntze.
Kuntze, O., Rev. Gen. Pl. **2**: 844. 1891.
Auricula protracta, O. Kuntze.
Kuntze, O., Rev. Gen. Pl. **2**: 844. 1891.

Auricularia blepharistoma, (B. & C.) n. n.
Hirneola blepharistoma, B. & C.
B. & C. Jour. Linn. Soc. **10**: 340. *d.* 1869. West Indies.
Sacc. Cub. & Manc. Syll. **6**: 769. *d.* 1 Aug. 1888.
Auricula blepharistoma, O. Kuntze.
Kuntze, O., Rev. Gen. Pl. **2**: 844. 1891.

Auricularia Cantharellus, Fr.
See ***Craterellus Cantharellus***, (S.) Fr.

Auricularia coffeicolor, (B.) n. n.
Hirneola coffeicolor, B.
B. Jour. Linn. Soc. **15**: 49. *d.* 3 March 1876. Bermuda.
Cke. in Hemsley, Bot. Challenger **1**: 102. 1885.
Auricula coffeicolor, O. Kuntze.
Kuntze, O., Rev. Gen. Pl. **2**: 844. 1891.

Auricularia delicata, (Fr.) Henn.
Bres. Henn. & Magn. in Engl. Jahrb. **17**: 492. 1893.
Henn. Hedw. **37**: 279. 31 Dec. 1898.
Heller, Muhlenbergia **1**: 20. 9 Aug. 1901.
Laschia delicata, Fr.
Fr. Nova Acta R. Soc. Sci. Upsal. III. **1**: 105. *d.* 1851. Mexico.
B. Ann. Nat. Hist. II. **9**: 197. March 1852. West Indies.
Auricula delicata, O. Kuntze.
Kuntze, O., Rev. Gen. Pl. **3**[2]: 446. 1898.

Auricularia flava, (Swartz) n. n.

NOTE. In connection with *Hirneola*, Fr. S. O. V. 93 consult Fr. S. M. **2**: 161.

Peziza flava, Swartz.
*Swartz, Prodr. 150. *d.* 1788. West Indies.
Swartz, Fl. Ind. Occ. **3**: 1939. *d.* 1806.
Fr. S. M. **2**: 161. *d.* 1822.
Sacc. Syll. **8**: 511. 20 Dec. 1889.
Hirneola flava, Fr.
Fr. S. O. V. 93. 1825.
Fr. Fung. Natal. 24. 1848.

Auricularia fuscosuccinea, (Mont.) n. n.

NOTE. The *Exidia fuscosuccinea*, Mont. has been placed by recent writers almost universally in *Hirneola* and hence as interpreted by us it belongs to the genus *Auricularia*. The only specimen of this species in Herb. Curtis is of such doubtful authenticity that we do not feel like basing any definite conclusions upon it. See note under *Auricularia Wrightii*, (B. & C.) n. n.

Exidia fuscosuccinea, Mont.
Mont. Pl. Cell. Cuba 364. *d.* 1841. West Indies.
Mont. Ann. Sci. Nat. II. **17**: 125. *d.* 1842.
B. & Mont. Ann. Sci. Nat. III. **11**: 242. 1849.
Hirneola nigra, Fr., var. ***fuscosuccinea,*** Fr.
Fr. Fung. Natal. 27. *d.* 1848.
Hirneola fuscosuccinea, Mont.
Mont. Syll. Crypt. 181. *d.* 1856.
B. & C. Jour. Linn. Soc. **10**: 340. 1869.
Sacc. Cub. & Manc. Syll. **6**: 768. *d.* 1 Aug. 1888.
Auricula fuscosuccinea, O. Kuntze.
Kuntze, O., Rev. Gen. Pl. **2**: 844. 1891.

Auricularia grisea, Fr.
See ***Stereum porrectum,*** Fr.

Auricularia hispidula, (B.) n. n.
Hirneola hispidula, B.
B. Jour. Linn. Soc. **14**: 352. 17 Oct. 1874. West Indies.
Sacc. Cub. & Manc. Syll. **6**: 769. *d.* 1 Aug. 1888.
Auricula hispidula, O. Kuntze.
Kuntze, O., Rev. Gen. Pl. **2**: 844. 1891.

Auricularia inconcinna, Cke. nom. nud.

NOTE. The name *Stereum inconcinnum* of Herb. Berkeley, apparently a manuscript name, is said by Cooke, 1891, to be an *Auricularia*.

Cke. Grev. **20**: 34. Dec. 1891.
Stereum inconcinnum, Herb. B.
Hark. Bull. Cal. Acad. **1**: 256 (1). 19 Nov. 1885.

Auricularia lobata, Sommf.
Mont. Pl. Cell. Cuba 373. *d.* 1841. West Indies.
B. & C. Jour. Linn. Soc. **10**: 335. 1869.
Sacc. Cub. & Manc. Syll. **6**: 762. *d.* 1 Aug. 1888.
Ell. & Macbr. Bull. Univ. Iowa **3**: 190. Feb. 1896. Cent. Amer.
*Smith, C. L., Cent. Amer. Fungi *148*. 1896.
Patila lobata, O. Kuntze.
Kuntze, O., Rev. Gen. Pl. **2**: 864. 1891.

Auricularia mesenterica, (Dicks.) Fr.
Sprague, Proc. Boston Soc. **6**: 318. 1859.
Curtis, M. A., Bot. N. Car. 106. 1867.
Cke. Handbook 319. *d. f. 83.* 1871.
Frost in Cat. Pl. Amherst 75. 1875.
Bundy, Geol. Wis. 1873–79, **1**: 399. 1883.
Cobb, List Pl. Amherst 36. 1887.
Sacc. Cub. & Manc. Syll. **6**: 762. *d.* 1 Aug. 1888.
Bennett, Cat. Pl. R. I. 82. 1888.
Pat. Essai Tax. 15. 1890.
Massee, Jour. of Bot. **30**: 163. June 1892.
Bomm. & Rous. in Durand & Pittier, Bull. Soc. Bot. Belg. **35**[1]: 154. 1896.
Duss, Champ. Guad. & Martinique 8. 1903.
Thelephora mesenterica, P.
S. Syn. Car. 106 (80) no. 1018. 1822.
Phlebia mesenterica, Fr.
S. Syn. Am. Bor. 165 no. 598. 1834.
B. & C. Jour. Phil. Acad. II. **3**: 218. 1856.
Patila mesenterica, O. Kuntze.
Kuntze, O., Rev. Gen. Pl. **2**: 864. 1891.

Auricularia nigra, Earle.
See ***Auricularia nigrescens,*** (Swartz) n. n.

Auricularia nigrescens, (Swartz) n. n.

NOTE. This species was originally named *nigrescens* by Swartz but later for some unknown reason he changed the name to *nigricans.* Fries in turn changed it to *nigra,* which name appears in most modern writings.

Peziza nigrescens, Swartz.
Swartz, Prodr. 150. *d.* 1788. West Indies.
Peziza nigricans, Swartz.
Swartz, Fl. Ind. Occ. **3**: 1938. *d.* 1806.
Hirneola nigra, Fr.
Fr. Fung. Natal. 27. *d.* 1848.
Fr. Nova Acta R. Soc. Sci. Upsal. III. **1**: 118. 1851. Hawaii.
Auricula nigra, O. Kuntze.
Kuntze, O., Rev. Gen. Pl. **2**: 844. 1891.
Auricularia nigra, Earle.
Earle, Bull. Torr. Bot. Club **26**: 633. 22 Dec. 1899.*
Atk. in Coker, Veg. Bahama 245. 1905.

Auricularia polytricha, (Mont.) Sacc.
Pat. Jour. de Bot. **3**: 341 (39). 16 Oct. 1889.
Pat. Essai Tax. 15. 1890.
Duss, Champ. Guad. & Martinique 8. 1903.
Exidia polytricha, Mont.
Mont. Pl. Cell. Cuba 365. *d.* 1841. West Indies.
Hirneola polytricha, Fr.
Fr. Nova Acta R. Soc. Sci. Upsal. III. **1**: 117. 1851. Cent. Amer.
B. & C. Jour. Linn. Soc. **10**: 340. 1869.
Polakowsky, Jahresb. Ver. Erdkunde Dresden **16**: 73. 1879.
Hark. & Moore, Cat. Pac. Fung. 17. Feb. 1880.
Sacc. Cub. & Manc. Syll. **6**: 766. *d.* 1 Aug. 1888.
Massee, Journ. of Bot. **30**: 163. June 1892.
Tonduz, Bull. Herb. Bois. **4**: 169. March 1896.
Bomm. & Rous. in Durand & Pittier, Bull. Soc. Bot. Belg. **35**[1]: 154. 1896.
*Smith, C. L., Cent. Amer. Fungi *150.* 1896.

Smith, A. L., Jour. Linn. Soc. **35**: 11. 1 April 1901.
uricula polytricha, O. Kuntze.
Kuntze, O., Rev. Gen. Pl. **2**: 844. 1891.

Aurcularia reflexa, Bull.
ee ***Stereum hirsutum,*** (Willd.) Fr.

Aurcularia regularis, Fr.
ee ***Thelephora regularis,*** S.

Aurcularia sambucina, Mart.
See ***Auricularia Auricula-Judæ,*** (L.) Schrt.

Auicularia scutelliformis, Earle.

NOTE. In authentic specimens of this species which we have examined the basidia are divided vertically and not transversely and this species can not be placed in the *Auriculariaceæ*.

See ***Exidia scutelliformis,*** (B. & C.) n. n.

Auricularia tenuis, (Lév.) n. n.
Exidia tenuis, Lév.
Lév. Ann. Sci. Nat. III. **5**: 160. 1846. West Indies.
Hirneola tenuis, Fr.
Fr. Nova Acta R. Soc. Sci. Upsal. III. **1**: 118. 1851. Hawaii.
Auricula tenuis, O. Kuntze.
Kuntze, O., Rev. Gen. Pl. **2**: 844. 1891.

Auricularia tremellosa, (Fr.) Pat.

NOTE. All the North American specimens of *Laschia tremellosa*, Fr. which we have been able to examine except that of C. L. Smith, Cent. Am. Fungi *142*. 1896 show the structure of *Auricularia* as already stated by Patouillard, 1887. The specimen of Smith no. *142* is not mature but it does not appear to be quite the same as the other specimens examined.

Pat. Jour. de Bot. **1**: 226, 231. *pl. 4, f. 8–10.* 15 Sept. 1887.
Laschia tremellosa, Fr.
B. & C. Jour. Linn. Soc. **10**: 323. 1869. West Indies.
Sacc. Cub. & Manc. Syll. **6**: 407. *d.* 1 Aug. 1888.
*Smith, C. L., Cent. Amer. Fungi *142*. 1896. Cent. Amer.
Smith, A. L., Jour. Linn. Soc. **35**: 7. 1 April 1901.
Auricula tremellosa, O. Kuntze.
Kuntze, O., Rev. Gen. Pl. **3²**: 446. 1898.

Auricularia velutina, (Lév.) Pat.
Pat. Jour. de Bot. **1**: 226, 231. *pl. 4, f. 6*, 7. 15 Sept. 1887.
Pat. Essai Tax. 15. *f. 8b, c.* 1900.
Laschia velutina, Lév.
B. Ann. Nat. Hist. II. **9**: 197. March 1852. West Indies.
Auricula velutina, O. Kuntze.
Kuntze, O., Rev. Gen. Pl. **3²**: 446. 1898.

Auricularia Vespertilio, Fr.
Fr. Nova Acta R. Soc. Sci. Upsal. III. **1**: 112. *d.* 1851. Cent Amer.
Polakowsky, Jahresb. Ver. Erdkunde Dresden **16**: 73. 1879.
Sacc. Cub. & Manc. Syll. **6**: 763. *d.* 1 Aug. 1888.
Patila Vespertilio, O. Kuntze.
Kuntze, O., Rev. Gen. Pl. **2**: 864. 1891.

Auricularia Wrightii, (B. & C.) n. n.

NOTE. It seems to us that *Hirneola Wrightii*, B. & C. and *Hirneola minuta*, B. & C. are the same species. The specimens examined were not in very good fruiting condition but they probably though not certainly belong to the genus *Auricularia*. It would be interesting to know the relation of this species to *Auricularia fuscosuccinea*.

Hirneola Wrightii, B. & C.
B. & C. Jour. Linn. Soc. **10**: 340. *d.* 1869. West Indies.
Sacc. Cub. & Manc. Syll. **6**: 767. *d.* 1 Aug. 1888.
Hirneola minuta, B. & C.
B. & C. Jour. Linn. Soc. **10**: 340. *d.* 1869. West Indies.
Sacc. Cub. & Manc. Syll. **6**: 767. *d.* 1 Aug. 1888.
Auricula minuta, O. Kuntze.
Kuntze, O., Rev. Gen. Pl. **2**: 844. 1891.
Auricula Wrightii, O. Kuntze.
Kuntze, O., Rev. Gen. Pl. **2**: 844. 1891.

Auriscalpium tenellum, O. Kuntze.
See ***Arrhenia tenella,*** Fr.

Aylographum.
See ***Aulographum.***

Bactridium, Kze.
Pound & Clements, Minn. Bot. Studies **9**: 734. *d.* 31 May 1897.

Bactridium carneum, Kze.

NOTE. The Schweinitzian specimen of this species, which we have examined, does not show any definite structure.

S. Syn. Am. Bor. 276 no. 2576. 1834.

Bactridium clavatum, B. & Br.
See ***Bactridium flavum,*** Kze.

Bactridium effusum, S.

NOTE. We have not been able to examine a specimen of this species.

S. Syn. Am. Bor. 276 no. 2577. *d.* 1834.
Sacc. Syll. **4**: 693. *d.* 10 April 1886.

Bactridium Ellisii, B.
See ***Bactridium flavum,*** Kze.

Bactridium flavum, Kze.
S. Syn. Am. Bor. 276 no. 2575. 1834.
Curtis, M. A., Bot. N. Car. 120. 1867.
Frost, Proc. Boston Soc. **12**: 79. 1869.
Cke. Handbook 479. *d. f. 188.* 1871.
Pk. Rept. N. Y. Mus. **26**: 77. April 1874.
Frost in Cat. Pl. Amherst 82. 1875.
Pk. in Day's Cat., Bull. Buf. Soc. **4**: 203 (139). 1883.
Sacc. Syll. **4**: 691. *d.* 10 April 1886.
Cobb, List Pl. Amherst 39. 1887.
Millsp. Bull. W. Va. Exp. Sta. 24: 517. June 1892.
Kellerm. & Werner, Geol. Ohio 7^2: 374. Jan. 1895.
Millsp. & Nutt. Publ. Field Columb. Mus. Bot. **1**: 100. Jan. 1896.
Lindau in Engler & Prantl, Pflanzenfam. 1^{1**}: 508. *f. 260 E.* Feb. 1900.
Duss, Champ. Guad. & Martinique 94. 1903.
Oidium aureum, S. Am. Bor.
S. Syn. Am. Bor. 285 no. 2744. 1834.
Curtis, M. A., Bot. N. Car. 130. 1867.
Hark. & Moore, Cat. Pac. Fung. 30. Feb. 1880.
Bactridium Ellisii, B.
B. Grev. **3**: 51 (93) no. 538. *d.* Dec. 1874.
Pk. Rept. N. Y. Mus. **31**: 58. 1879.
Cragin, Bull. Wash. Lab. **1**: 68. Jan. 1885.
Sacc. Syll. **4**: 692. *d.* 10 April 1886.
Arth. & Holw. Bull. Minn. Surv. 3: 34. 1 Oct. 1887.

Morg. Bot. Gaz. **15**: 86. April 1890.
McClatchie in Reid's Hist. Pasadena 617. 1895.
Ricker, Univ. of Maine Studies 3: 24. 30 April 1902.

Bactridium clavatum, B. & Br.
Morg. Bot. Gaz. **15**: 86. April 1890.
McClatchie, Proc. S. Cal. Acad. **1**: 377. 5 June 1897.

Bactridium fulvellum, B.

NOTE. This was originally described apparently in Fungi Cubenses where it is said to occur also in Venezuela. An examination of Wright's Cuban specimen and Fendler's from Venezuela in Herb. Curtis shows that the Venezuela and Cuban plants are not the same species. The Cuban specimen in habit and microscopic structure is certainly very near to, if not identical with, *Bactridium flavum*.

The Venezuela specimens are branching, coralloid masses about 6 mm. in height and of a yellowish color. They are composed of a dense branching mass of hyphæ which branch dichotomo-corymbosely at the surface and have tips bearing spores composed of 8 to 14 cells and measuring 280 μ to 300 μ by 28 μ to 35 μ. It is doubtful whether this species is properly placed in the genus *Bactridium*.

B. & C. Jour. Linn. Soc. **10**: 354. *d.* 1869. West Indies.
Sacc. Syll. **4**: 692. *d.* 10 April 1886.

Bactrodesmium clavulatum, Cke. & Hark.
See ***Clasterosporium clavulatum***, (Cke. & Hark.) Sacc.

Bactrodesmium opacum, Cke. & Hark.
See ***Clasterosporium Harknessii***, Sacc.

Badhamia, B.
Including ***Scyphium***, Rostf.

Badhamia affinis, Rostf.
Rostf. Mycetozoa 143. *d.* 1875.
Pk. Rept. N. Y. Mus. **31**: 41, 56. 1879.
Berl. in Sacc. Syll. **7**: 331. *d.* 15 March 1888.
Lister, Mycetozoa 36. *d.* 1894.*
Morg. Jour. Cin. Soc. **19**: 35 (107). *d. pl. 3 (15), f. 70.* 23 Aug. 1896.
Macbr. Slime-moulds 66. *d.* Aug. 1899.

Badhamia capsulifera, (Bull.) B.

NOTE. It seems to be generally agreed that *Badhamia capsulifera*, (Bull.) B. and *Badhamia hyalina*, (P.) B. should be united. *Didymium simulans*, Howe is united with this species on the authority of Peck. See also note under *Badhamia papaveracea*, B. & Rav.

Morg. Jour. Cin. Soc. **19**: 34 (106). *d.* 23 Aug. 1896.
Harvey, Bull. Torr. Bot. Club **24**: 67. *d.* 28 Feb. 1897.
Macbr. Slime-moulds 68. *d.* Aug. 1899.
Ricker, Univ. of Maine Studies 3: 12. 30 April 1902.

Physarum hyalinum, P.
S. Syn. Car. 62 (36) no. 371. 1822.
S. Syn. Am. Bor. 257 no. 2276. 1834.
Curtis, M. A., Bot. N. Car. 112. 1867.

Badhamia hyalina, B.
Cke. Handbook 392. *d.* 1871.
Cke. Ann. N. Y. Lyceum **11**: 390. June 1877.
Pk. Rept. N. Y. Mus. **29**: 46. 1878.
Pk. Rept. N. Y. Mus. **31**: 56. 1879.
? Bessey, Bull. Iowa Agr. Coll. **1884**: 134. Jan. 1885.
Berl. in Sacc. Syll. **7**: 332. *d.* 15 March 1888.
Ell. in Cat. Pl. N. J. 595. 1889.

Schrt. in Engler & Prantl, Pflanzenfam. 1^1: 35. *d.* Aug. 1892.
McClatchie, Bot. Gaz. **19**: 246. 20 June 1894.
McClatchie in Reid's Hist. Pasadena 609. 1895.
Harvey, Bull. Torr. Bot. Club **23**: 307. 20 Aug. 1896.
Olive, Proc. Ind. Acad. **1897**: 149. 1898.
Ricker, Univ. of Maine Studies 3: 12. 30 April 1902.

Didymium simulans, Howe.

Howe, Bull. Torr. Bot. Club **6**: 30. *d.* April 1875 and Hedw. **14**: 188. *d.* Dec. 1875.
Cke. Ann. N. Y. Lyceum **11**: 392. June 1877.
Pk. Rept. N. Y. Mus. **31**: 57. 1879.
Berl. in Sacc. Syll. **7**: 332. *d.* 15 March 1888.

Badhamia varia, Massee p. p.

Massee, Mon. Myx. 319. *d.* Dec. 1892 and Bull. Torr. Bot. Club **20**: 79. Feb. 1893.

Badhamia chrysotricha, Rostf.

See ***Badhamia decipiens,*** (M. A. Curtis) B.

Badhamia decipiens, (M. A. Curtis) B.

NOTE: *Physarum subglobosum,* Berl. in Sacc. Syll. **7**: 352 is an error for *Physarum chrysotrichum,* B. & C. which is again quoted on page 333 of the Sylloge under its proper name. See also note under *Physarum Auriscalpium,* Cke.

B. Grev. **2**: 66 (55). Nov. 1873.
Berl. in Sacc. Syll. **7**: 333. *d.* 15 March 1888.
Lister, Mycetozoa 32. *d. pl. 3 B, f. a–i.* 1894.
Morg. Jour. Cin. Soc. **19**: 36 (108) *d. pl. 3 (15), f. 71.* 23 Aug. 1896.
Underw. & Earle, Bull. Ala. Exp. Sta. 80: 133. *d.* 28 June 1897.
Lister, Jour. Bot. **35**: 210. June 1897.
Macbr. Slime-moulds 63. *d.* Aug. 1899.
Earle in Mohr. Contr. U. S. Nat Herb. **6**: 141. 31 July 1901.
Sumstine, Torreya **4**: 36. 12 March 1904.
Lister, Jour. of Bot. **42**: 129. *d.* May 1904.

Physarum decipiens, M. A. Curtis.

Curtis, M. A., Am. Jour. Sci. II. **6**: 352. *d.* Nov. 1848.
Curtis, M. A., Bot. N. Car. 112. 1867.
Rostf. Mycetozoa 115. 1875.

Physarum chrysotrichum, B. & C.

B. Grev. **2**: 66 (54) no. 357. *d.* Nov. 1873.
Rostf. Mycetozoa 115. 1875.
Massee, Mon. Myx. 300. *d.* Dec. 1892.

Badhamia chrysotricha, Rostf.

Rostf. Mycetozoa, Suppl. 4. *d.* 1876.
Cke. Ann. N. Y. Lyceum **11**: 390. June 1877.

Physarum subglobosum, Berl.

Berl. in Sacc. Syll. **7**: 352. *d.* 15 March 1888.

Physarum gyrosum, Massee p. p.

Massee, Mon. Myx. 307. 1892.

Badhamia fasciculata, (Jungh.) Rostf.

NOTE. We have not been able to examine specimens of this species.

Harvey, Bull. Torr. Bot. Club **23**: 308. 20 Aug. 1896.
Ricker, Univ. of Maine Studies 3: 12. 30 April 1902.

Badhamia granulifera, Massee.

NOTE. See *Didymium granuliferum,* Phil. and note in Lister, Mycetozoa 106 under *Lepidoderma.*

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